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THE MAGAZINE
OF
HORTICULTURE,
BOTANY,

AND ALL USEFUL DISCOVERIES AND IMPROVEMENTS IN
RURAL AFFAIRS.

“ Je voudrais échauffer tout l'univers de mon gout pour les jardins. Il me semble qu'il est impossible qu'un méchant puisse l'avoir. Il n'est point de vertus que je ne suppose à celui que aime à parler et à faire des jardins. Pères de famille, inspirez la jardinomanie à vos enfans.”—*Prince De Ligne*.

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P R E F A C E .

THE Thirteenth Volume of the Magazine has been enlarged by the addition of one hundred pages more than any previous volume; and the following Table of Contents will show the very great variety of information which it contains in every department of Horticulture, especially on the cultivation of fruits, and descriptions of new and fine varieties.

C. M. H.

Boston, December 25, 1847.

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THE MAGAZINE OF HORTICULTURE.

JANUARY, 1847.

ORIGINAL COMMUNICATIONS.

ART. I. *A Retrospective View of the Progress of Horticulture in the United States during the year 1846.* By the EDITOR.

It has not been our good fortune, since our first annual summary of Horticultural Improvement, in 1838, to record such a general interest and wide spreading taste in Horticultural and Rural pursuits, as at the present period. The rapid changes in national prosperity from 1835 to 1845, a period of ten years, were attended with equally great fluctuations in the tastes and pursuits of large classes of the community, and until the last year or two, it can scarcely be said that a rapidly progressing zeal has been manifested in Horticultural and Rural occupations.

But a better day seems to be dawning: alive to the important benefits which result from a more thorough knowledge of the art of cultivation, we find a more active interest taken in every thing which relates to gardening. He who possesses a spot of ground, even if his taste has not been cultivated sufficiently to fully appreciate it, feels it no less his duty than his pride to go forward in the march of improvement, and plant trees, either for profit or ornament, that they may be valuable at a future day, if not at the present moment. It is not an individual taste which impels the public now, but a general coöperation to carry out improvements which have too long been left neglected or abandoned. Such a state of prosperity is cheering to every cultivator, and it should be the aim of all interested in a pursuit so conducive to the morals and happiness of a people, to encourage and foster so laudable a zeal.

The yearly advancement in an art like gardening must be necessarily limited: improvements constantly arise, but there are few startling discoveries, or wonderful achievements, to record. Science is always unfolding something new to the cultivator, but experience only will confirm the value or importance of innovations upon established rules and systems. The old routine of practice is not to be thrown aside at once; neither should customs be pertinaciously adhered to which had their origin at an early period, and have become part and parcel of our knowledge. But the cultivator who would aim to excel, must make himself familiar with all the principles of the art; continual study and research, united with observation and experience, will then enable him to attain the most satisfactory and successful results.

The season of 1846 has been throughout New England as dry, or drier than the three previous dry ones of '43, '44 and '45; that is, there has been less rain during the summer of 1846, than during that of 1845; yet vegetation has gone on as if the season had been nearly an average one as regards moisture; trees have made a most remarkable growth; crops have been generally exceedingly good; there was a good yield of grass, and the fruit crop was far above an average one. All this, however, has taken place in the absence of actual rain; but if we could know exactly the atmospheric moisture, we should find that it has been very much greater than in 1845; there has been a constant succession of cloudy, misty and hazy weather throughout the summer and fall, which has so far prevented evaporation, that what rain has fallen has had the greatest effect.

The winter of 1845 and 1846 was considerably colder than that of 1843 and 1844. It commenced very early in the west; large quantities of snow fell; and a series of severe frosts injured all kinds of roots and plants, killing many, which had stood out for years, quite down to the ground. January was tolerably mild, with one heavy drifting snow which, however, nearly disappeared the latter part of the month. February was a cold and stormy month, with two drifting snows, and good sleighing the whole month; the thermometer indicating 6° below zero. March, on the contrary, was a month of more than ordinarily mild weather, the

snow disappearing under a warm sun, leaving the ground with but little frost at the close. April continued the same, with scarcely a moderate rain during the entire month; planting commenced early in consequence of the dry and fine weather, and fruit trees were in bloom the latter part of the month, promising an abundant crop. The month of May continued favorable; one or two rather severe frosts occurred, which injured the blossoms of fruit trees in some low and cool situations; at the close, several refreshing showers were highly beneficial to advancing vegetation. In June, cool weather set in, and the whole month was accompanied with cloudy, misty, and showery days, without, however, any great quantity of rain; this was highly favorable to grass crops, which had begun to suffer. July continued nearly the same with easterly winds. In August, hot weather set in, the thermometer attaining 100 degrees in the shade; and, but for cloudy and lowery days, vegetation would have suffered severely. September continued favorable, though still without rain. October was mild with no very severe frost until the 8th or 10th. November was quite different from the corresponding month in 1845, when 11 inches of rain fell: It continued mild till the 25th, when a light snow fell; this was succeeded by rain, but not sufficient to keep the ground open. Early in December more snow fell, and now (15th) covers the ground about 4 inches, with but an inch or two of frost in the earth beneath.

The season has been on the whole favorable. Apples were smaller than usual, owing to the drought, but the aggregate crop was heavy. Pears were not near so numerous, large, or handsome as last year; in some locations, the blossoms were injured by the early frosts. Peaches were never more abundant in the Middle and Western States, and there was a fine crop in New England. Plums were as plentiful as usual. The potato crop was but little affected by the rot in comparison with the season of 1845.

HORTICULTURE.

Under this head, we may refer to the strawberry question, as one of importance, and which at last has been satisfactorily settled. Four years has the subject been agitated, and during

this time the conflicting opinions of cultivators, in all parts of the country, have been recorded in our volumes. But until the experiments of the last year we have not been able to arrive at certain results. It was therefore with much pleasure that in our review of Mr. Longworth's pamphlet, in the last volume, (p. 358,) we had the opportunity to give our views at length, and views, we are happy to say, which coincide with the opinions of all intelligent cultivators.

So satisfactory has been the result, that we should not again occupy the attention of our readers with the subject, but for the purpose of noticing some strictures upon the opinions which we have from time to time advanced, while the question has been under the process of investigation, by our old correspondent, the Rev. Mr. Beecher, in the *Western Farmer and Gardener*. We have always had a high respect for Mr. Beecher's opinion, but, in the present instance, for some motive which does not appear, he has, by quotations here and there from our remarks, having reference to the opinions of our correspondents, falsified our views and endeavored to make it appear that we have advanced positive conclusions upon the question, without due investigation. This we deny; we have never had but one opinion upon the abstract question of *fertile* and *sterile* strawberries; but during the season of 1843, from facts which were contributed by several of the most observing and careful cultivators, we did doubt the necessity of staminate flowers to impregnate the pistillate ones, believing that *sterility* or *fertility* was greatly owing to the method of cultivation; and we then observed that *as soon as convinced to the contrary, we should lose no time in informing our readers of the fact*; we then immediately set about instituting a series of experiments to test this under our own eye; and when they were brought to a close the last season, we gave, as we promised, the results of our investigations,—satisfactory as they have been to all.

Some excellent Pomological articles have been contributed by our correspondent, Mr. Humrickhouse, one of the most important of which is that upon a uniform nomenclature of fruits; the principles which he advocates as necessary to carry out this, he has laid down in a plain and concise manner; and we trust they have been carefully read and consid-

ered by all cultivators. Until these principles are acted upon, it will be useless to expect correctness in our catalogues of fruits. There is abroad among cultivators, as well as writers upon Pomology, a want of respect in regard to priority of names, and original descriptions. In Botanical science, the strictest propriety is observed in this respect; and, to prevent errors and confusion, it should be no less observed in Pomology.

The *blight of the pear tree*, so fatal in the west, has been the subject of an article by Mr. Ernst, (p. 135,) and he has given a very clear description of the manner in which the disease appears. But he has added nothing new to the remarks of Mr. Beecher, in our Vol. X. (p. 441.)

Another subject which has attracted considerable attention has been noticed by Mr. Ernst, viz., the duration of races of plants. Our experience is against the opinion of Mr. Knight, but how far the causes which Mr. Ernst alludes to, have any effect upon the vigor of a variety, remain to be tested by long and careful observation.

One of the most valuable papers which our last volume contains, is that of Mr. Humrickhouse, on the cultivation of the pear upon the apple; a great deal has been said by foreign writers about the excellence of the hawthorn and mountain ash, as a stock for the pear, and by some American journals the apple; but so far as the latter is concerned, we think Mr. Humrickhouse has conclusively proved that, though fruit may be produced on the apple, the pear is the stock which, for *orchard* culture, must be relied on. For garden cultivation, the *quince* is decidedly preferable, and while the cultivators of Great Britain are imitating the method of the French, in adopting dwarf trees upon the quince, our own cultivators should not neglect to follow their example; the false notion that the quince is a very short-lived tree, is sufficiently refuted by the fact that a long row of *quenouille* trees in the Garden of the London Horticultural Society, which we saw in 1844, had been planted 25 *years*, and was then in the most vigorous and fruitful condition.

The conclusion of our European notes of gardens has given us space to bring up our Pomological notices; and during the year, we have given an account of all the new fruits of

importance, and also added the engravings and descriptions of eighteen kinds of pears, besides several apples and plums. The remarks of our correspondent, Mr. Manning, (p. 146,) embrace all the new fruits proved by him in 1845, and we have the promise of notes on such as have proved good the last year. The Leon le Clerc, which in 1845 created so much attention, did not fruit so well last year, probably owing to the hot summer; in many places, it cracked badly; but this should not induce any one to discard it; the experience of several successive seasons should always be required before deciding upon the merits of a new kind. The Dunmore has fruited again; but specimens from the President of the Massachusetts Horticultural Society, from a tree on the *quince* were not of so high a character as given by Mr. Thompson. A definite opinion must be deferred to another year. The true Monarch has not yet fruited, but it is hoped that specimens will be produced this year; trees received from various sources in England since the identification of the true kind by Mr. Thompson, have proved spurious. The following kinds of pears have proved to be valuable varieties, possessing qualities which entitle them to general cultivation:—Henkel (Van Mons), Van Assene, Doyenné Boussock, Dallas, Doyenné gris d'Hiver Nouveau, Doyenné d'Été, Knight's seedling, McLaughlin, Elizabeth (Van Mons), Coter, Ananas (of the French) Plumbgastel, Beurré d'Anjou, Pratt, and some others. Some new grapes have been lately added to our already extensive list; in a future page will be found a notice of some of them by Mr. Allen, but we may name Wilmot's Black Hamburgh, New Black Hamburgh No. 16, Muscat Blanc Hatif, Cannon Hall muscat, Black Tripoli, Wortley Hall Seedling, and Macready's Early white, as fine additions to this excellent fruit. A favorable season for peaches has also brought to notice some new seedlings which we shall notice in the course of the volume.

As connected with the culture of the grape, which is every year rapidly extending, by means of cheap and appropriate structures, we should not omit to call attention to the capital article of Mr. Russell upon their management in the *cold house*. He has touched the whole ground, and, with moderate judgment, no person can fail to produce a fair crop of grapes, if his advice is followed.

A great number of new strawberries are noticed in some of the agricultural journals; Dr. Brinkle, of Philadelphia, having raised two hundred and fifty varieties since 1842, and Mr. Burr, of Ohio, about fifty. We await the opinions of our friends in regard to their merits. At least three years will be required to accurately test their value before offering to the public. To raise a strawberry from seed one year, bring it into fruit, with a dozen or two berries the second, and name, describe, and offer it for sale the third, will not be a sufficient guaranty to induce cultivators to buy. Princess Alice Maud, the Swainston seedling, Prince Albert, the British Queen, and other foreign kinds, though some of them are tolerably good, have proved far inferior to American seedlings, and they cannot be relied upon for principal crops.

The establishment of a class of premiums by the Massachusetts Horticultural Society, through the liberality of some unknown amateur cultivator, must have a good tendency in the selection of fruit; these premiums being for the best two or three varieties during a series of three years; and those kinds which gain two out of the three, will have the standard of superiority, so far as the fruit alone is concerned; something must then be allowed in regard to the growth and hardiness of the tree, and the general qualities of productiveness, beauty, &c. &c. Good results, however, must follow, as the committee will, at the close of each year, publish a list of the names of the fruits which take the premiums.

FLORICULTURE.

The increasing interest in Pomology, and especially a desire for information relative to new pears, has induced us to devote much of our room to that subject; consequently our last two volumes have not contained so many articles upon the cultivation of plants as those which preceded them; with an increase, however, of the number of pages, we shall again look well to the interest of the Florist, and endeavor to devote our usual room to the cultivation of rare and beautiful plants.

Our last volume, however, contains some excellent articles. The phlox, which has recently attracted more attention from the increased beauty of the Belgian seedlings, has been the subject of a notice, and we have described twenty-four of the

best varieties, and given some remarks upon their cultivation. A capital article on the tulip has been contributed by one of our most successful amateurs, and also one upon that beautiful, but too much neglected flower, the pansy, by the same writer. These have been in such detail, that we trust they have been found of great value to cultivators.

A reference to our reports of the Massachusetts Horticultural Society will show the variety of new flowers and plants which have been exhibited. Among the number, will be found many of the newest fuchsias, gloxinias, gladioluses, roses, achimenes, pelargoniums, &c. The fuchsia has been shown in fine condition, and some of the new sorts have been great improvements upon the older kinds. Some of the new gladioluses have been extremely fine, particularly *belvidérus*, a fancy striped variety. *Achimenes picta* has been the *gem* of pot plants, and will always be a favorite.

Of new and rare plants which deserve particular mention, we may name *Verónica speciosa*, a very handsome summer flowering plant with spikes of violet blue flowers. *Buddlea Lindleyana*, a shrubby plant with pretty clusters of purple and lilac flowers; *Gloxinia tubiflora* with fragrant flowers, and *G. Cartoni* with exquisite white and pink blossoms. Some of the new pelargoniums have been exceedingly fine, but we hope to see them another year better grown, and brought forward with greater care; in another page we have offered some remarks upon the cultivation of this family to which we refer our readers. Some fine new pæonies have been exhibited, and in particular one of the shrubby kinds, called *Hissiana*, a remarkable improvement upon the old ones. In our Floricultural notices, some new plants of remarkable beauty have been described, particularly the yellow tree pæony; *Gardènia Stanleyana*, and the fine things found by Mr. Fortune in his China expedition, an interesting account of which (p. 445) we have already given.

The production of seedlings of all kinds is yearly increasing, and good results must follow these numerous experiments. Mr. Wilder has been successful with the camellia, and has raised two very fine varieties, for which the Massachusetts Horticultural Society awarded a handsome silver pitcher. A great quantity of Japan lilies have been raised

from seed, and we have no doubt that, in a year or two, some beautiful new kinds will be added to our gardens. The high price which these superb lilies have been held at, owing to their slow increase, and great demand, has prevented their finding their way into general cultivation; but in a year or two we hope to see them in every collection. The Chinese azalea is the flower next to the camellia which is attracting great attention in England and on the Continent, and many superb new seedlings have been recently produced. We hope our amateurs will try their hand at the production of new kinds.

We stated, in our annual summary last year, that we should not let a season pass by without impressing upon cultivators the necessity of more attention to the culture of hardy rhododendrons and azaleas; and we are happy to know that what we have already said has induced many gentlemen to introduce several plants into their gardens. Only let a good collection once be seen in full bloom, and, our word for it, they will be more eagerly sought after than any other flowering plant. They are so perfectly hardy, and easily cultivated, that it is only surprising that their great beauty has not been recognized before. Our nurserymen have only to furnish themselves with a good stock, and dispose of them at reasonable prices, and then their introduction into every garden will speedily follow.

Our extracts from foreign journals, particularly the *Gardener's Chronicle*, contain some valuable hints relative to the art of cultivation. We allude particularly to the advice on watering out of doors,—the drainage of pots, (p. 265,) and the general treatment of greenhouse plants (p. 66). The one-shift system of potting, which a year or two ago attracted so much notice in England, having lost its novelty, is numbered among other theories of the day applicable to some plants, but of no general utility. Guano has attracted less attention among cultivators of plants, but this arises from a settled conviction of its value, after the many details of experiments of the three or four preceding years. We are most happy to notice that Dr. Lindley has paid a merited compliment to our friend Mr. Teschemacher, in extracting several columns from his excellent pamphlet on *Guano*. Some valuable hints on

the use and application of Guano will be found at p. 168, by our correspondent, Mr. Robinson.

ARBORICULTURE.

The introduction of ornamental trees and shrubs of the more scarce and rare kinds is rapidly extending, and nurserymen are making greater efforts to add to the very limited number which their collections have heretofore contained. It is gratifying to see the experiments which are now being made to test the hardiness of many trees which have recently been introduced to Great Britain, and some of which, from the elevated regions of warm countries, will be likely to prove hardy in the climate of the Middle and Eastern States. Among those more particularly noticeable, we may name the *Cèdrus Deodàra* or Deodar Cedar, from the East, where it forms one of the most majestic trees. In the notes of our foreign tour, we have repeatedly spoken of this cedar, and urged its introduction into our gardens, where it will undoubtedly prove hardy. A small specimen in our collection, little protected with straw, stood the last winter well: as soon as it has acquired more strength, we shall try it unprotected. The Lucombe Evergreen oak we have proved to be quite hardy; and specimens now before us, (Dec. 15,) are nearly as green and beautiful as the holly. The *Paulòwnia* is another tree, of the habit of the catalpa, producing large purplish flowers about the same size, with very large leaves, and of a growth as rapid as the *ailantus*. It has stood out quite unprotected on Long Island, and we have no doubt it will prove hardy around Boston. The original tree, which stands in the Jardin des Plantes, of Paris, has very much the appearance of the catalpa, the leaves not being near as large as has been stated, when the tree acquires a moderate size.

The London Horticultural Society, perceiving the great good which must eventually result from the production of seedling trees and shrubs, has introduced into its schedule of prizes for 1847 two or three liberal ones for the best *hybrid* trees or shrubs: within a few years great improvements have been made in the lilac, magnolia and some other plants, and no doubt this movement of the Horticultural Society will aid much in inducing amateurs and nurserymen to extend their

experiments to all those ornamental trees and shrubs which are most likely to give improved varieties.

Under this head, we may allude to the excellent article on transplanting large trees, by our correspondent, Mr. Henderson (p. 248); not that we are great advocates for removing large specimens, but merely to show that it can be done,—and successfully,—when it is desirable to plant in some exposed situation, or produce immediate effect in landscape scenery.

The Public Garden in Boston, it is stated in the papers, intend to rearrange their grounds, and plant at least *one* specimen of every *American* tree which will stand in this latitude; if such is the intention, we hail it as the first really progressive step which has been made since its organization. Had the amount been laid out for the improvement of the grounds, and the planting of trees, which was expended in purchasing a large collection of plants, the proprietors, as well as the public, might now have enjoyed the luxury of umbrageous walks and shady groves, which a judicious arrangement of trees would, in five or six years, have produced.

GARDEN ARCHITECTURE.

The improvements in the erection of greenhouses and other structures for plants, are rapidly extending. To aid in this, we have given, agreeably to our promise, a full account of the mode of constructing grapehouses on the Curvilinear plan, first adopted by Horace Gray, Esq., of Newton, which has succeeded so well, that a large number have been erected, and others are now building in the same style. Our engravings at pp. 379 to 383 represent the manner of construction so plainly, that any carpenter of moderate ability could erect a building.

To test its applicability for the purpose of forcing, in our climate, as well as for grapehouses merely, we have recently erected a hothouse, eighty-four feet long, fifteen wide, and twelve feet high at the back; with a roof facing the south only, the ventilators being in front, and in the back wall. We shall endeavor to give a plan of it hereafter; it is now, as we write, just put in operation. Grapes are intended to be planted for forcing. It is fitted up with a pit the whole length, bottom

heat being supplied by pipes in a chamber beneath, and is warmed with one of Mr. Whately's cast-iron boilers.

The principles of heating are now a subject of much discussion in foreign journals. We alluded last year to the system which was attracting so much interest, viz., the *Polmaise*. Flues have had their day,—steam succeeded,—hot water took its place,—and now comes the *Air King* to dethrone them all. According to the accounts which have been given, the mode of heating by warm air has been far more successful thus far,—as well as, it is stated, more congenial to the plants,—and at not a quarter of the expense,—than hot water. Two years ago we tried a small house heated upon this system, but it did not succeed, owing to improper construction; this year we have again partially tried this plan, and it appears to work admirably. The *Polmaise* system is merely the construction of a chamber over the furnace, from whence the air is conducted into the house, and, traversing its length, when it becomes cool, is brought back by drains under the floor, to be heated again. Thus a constant circulation is going on, which is highly congenial to the plants, moisture being supplied by a pan of water, *over* which the hot air must pass as it comes into the house. For the climate of England, there is no doubt of its perfect success, but for our severe weather it remains to be seen whether it can be made to answer; the only requisite will be a powerful furnace to supply hot air. We shall soon give some plans and a further account of this new mode, that our amateurs may be induced to try it; for vineries where only a slight heat is required, in the months of March and April, it will succeed well.

COMMERCIAL GARDENING.

The increase of nurseries is the best evidence of the prosperous condition of Commercial Gardening: a large extent of country to supply, with an increasing taste every where apparent, has caused a demand which has not been fully met, particularly in choice varieties of pears. In the Atlantic cities, this is especially the case. But large quantities of stocks have been planted out, and we may soon look to a supply fully adequate to the wants of the public.

In Boston and vicinity, the nurserymen have been extending their premises, and their collections of trees. The Pomological Garden of Mr. Manning has been extended, and the facilities for supplying trees increased; and we are happy to know that the deserving young men, who have succeeded to the management of their father's place, so well sustain the reputation of the garden for accuracy. Mr. Allen of Salem has been highly successful in the culture of the grape, and it is with great satisfaction that we lay before our readers, in another page, the result of his experience thus far, in regard to this delicious fruit.

A constant demand for large trees has been of service to the older establishments around Boston, whose accumulated stock might sometimes be thought of little value; and Messrs. Winship and Kenrick have contributed to supply the demand. Messrs. Hovey & Co., by the construction of two new houses upwards of one hundred feet long, have greatly extended their collections of greenhouse plants; and their stock of fruit trees, especially of *new* and *rare* kinds, is very large. The specimen fruit trees, containing 500 varieties of pears alone, are rapidly coming into fruit. Mr. Walker, of Roxbury, is devoting much attention to the pear, with a view chiefly to raise large and fine specimens which will come at once into bearing, and thus prevent the amateur from waiting for a supply of fruit.

Our time has not allowed us our usual autumn visit to New York, but we learn that our Flushing friends have a fine stock of trees. Mr. Reid, of Murray Hill, has a fine piece of ground at Elizabethtown, N. J., from whence his stock is mostly received. Mr. Thorburn, at Hallet's Cove, is devoting much attention to a fine collection of plants.

In Philadelphia, Baltimore and Washington, many additions have been made to the several nursery establishments, and our correspondent, Mr. Buist, has opened a seed establishment in Chestnut Street.

Of commercial gardening in other cities, we have no direct information. In our last volume is an account of its condition in Western New York, particularly around Rochester and Buffalo. In the former city, Messrs. Bissell and Hooker and Ellwanger & Barry, Moulson, and others, are extending and increasing their several collections of trees and plants.

GARDEN LITERATURE.

The principal publications of the year have been Browne's *Trees of America*; the *Farmers' Dictionary*, by D. P. Gardener; the *Fruit Culturist*, by J. J. Thomas; and the *Compend of American Agriculture*, by Mr. Allen. Mr. Downing's *Fruits* has passed to a sixth edition. A Report of the *Trees and Shrubs of Massachusetts*, by order of the State, has been completed by G. B. Emerson, Esq., but it will not be distributed till after the Legislature convene. Other smaller works have been published. A new edition of the *Flower Garden Companion*, by Mr. Sayers; and pamphlets on the *Grape* and *Strawberry*, by Mr. Longworth; and the *Culture of the Grape*, by Dr. Flagg. Mr. Colman's work has reached the seventh No., three more completing the work. The old *New England Farmer* has been discontinued, and its place filled with the *Horticulturist*, published at Albany. The *Genessee Farmer* is ably edited in the Horticultural department by Mr. Barry, of the Mount Hope Gardens, Rochester. The *American Agriculturist* and *Cultivator* continue to be issued with their usual merit.

ART. II. *Taste in Horticulture and in Designs.*

By OBSERVER.

WE have been often pleased, in the perusal of the "Magazine of Horticulture and Botany," at the laudable attempts of the Editor of that periodical, to introduce to the favorable notice and adoption of gardeners, and of those who may have a rod or two of ground to cultivate, such contrivances for the handsomer growth of plants as combine ornament with utility. A well ordered garden of ever so humble a character, properly laid out, or its plants judiciously arranged, pleases the eye very much more than a larger domain where Flora reigns indeed, but in a state of misrule and misprison. We have seen such gardens, so rudely kept, and so slovenly attended, that it would require the ardor of a botanist to perceive any particular interest in the variety, nay, in the profu-

sion, which oftentimes may be found there. We have also seen in some a very limited area of a few feet of neatly kept borders and beds, much fewer plants, yet of such choice selection, and admirable adaptation to the circumstances of the place, as to afford a degree of pleasure as satisfactory as it was unexpected. We have been often most sadly disappointed in our expectations of some *new* species, some rare or lately introduced *variety*, through the careless or unpropitious manner in which it has been presented to our eye, and again as agreeably surprised to find, in some other collection, points of real merit and of excellence, which a better growth, or more favorable coincidences, have brought out. Were plants, like some other organized beings, as sensitive to a careless and indifferent regard to them, or to their wants, we could imagine how often and how deeply they must be wounded in their feelings, or shocked, at the want of common sense and of just propriety exercised towards them. In floriculture, more than half the art of culture depends on the proper taste employed in bringing out and setting forth the distinctive merits of the subject under consideration:—this the more especially, if the subject be a plant of some well known kind, in which the genius of the florist would develope some new beauty, hitherto unperceived; or if, again, it be some new variety of an old and well known kind of flower, where none but his critical eye would be able to see the distinctive marks of the variety from the original species, unless his contrivance or his art should make them at once prominent. To these ends, the florist must become not only the artist, but the inventor: and the more fertile his mind in experiments, the more successful will he be in expedients. Whoever has had any practical experience in floriculture knows well how much soils and manures affect the growth and general habit. The cultivator of fruits, too, is well aware how much depends on good management, not only of cultivation in the soil, but also of judicious training, and artistical operations above the ground, on the body, branches, entire plant itself. Would he produce fair specimens of fruit, he knows that he must most carefully train, prune, ripen. No superfluous growth must be allowed to hinder the more important portions, on which are to depend the healthy and operative functions. Every tree, every

vine, has its rules of culture, whether espalier or standard. The better they are trained, the more orderly they look, and the more certain the anticipated result. As, in every thing which requires attention, there are, and must be always, rules to be observed and methods to be employed, so, particularly in the order and management of the garden, there must be a similar propriety, to be strictly and rigidly regarded.

It is on the just appreciation and nice tact acquired, of these facts, that the skill of the florist depends. He not only is the experimenter on the nature and properties of the soils best adapted to the luxuriant or more natural growth of plants, but he must combine the talent of a discriminating taste on the future arrangement of their growing and flowering. To a certain extent only can art overcome nature; and excess of care may prove as fatal, in some cases, as its want. The native habits of plants ought to be known. We should not expect to see the delicacy and tenderness of some species, whose native growth is usually sheltered by situations combining shade and moisture, exhibit themselves in a transplanted successful culture, exposed to the sun, and chilled by the changeful winds: nor should we anticipate a gorgeous exhibition of brilliancy, in tints of petal or foliage, where heat or light were insufficient. These same remarks hold good in the artistical arrangement of the growing plant, so that it may adapt itself to its unnatural situation, and imitate nature as much as its circumstances allow. In this, nature should be regarded as much as art will permit: for when either are forced out of their legitimate sphere, the effect must be always and unquestionably bad.

We have spoken of the skill of the florist in setting out the particular merits of new species and varieties, so as to show their best points, and at the same time to permit and even invite the eye of the beholder to detect at once the difference. It is well known that some quite choice varieties differ so little from the older ones, that such skill is necessary to make their merit appreciated. Sometimes it consists in the better shading of the petal, sometimes in the deeper green of the foliage, and sometimes in the straighter or cleaner contour of the stem. Judicious pruning frequently obviates unpropitious characteristics, or ingeniously contrived apparatus overcomes,

by training, some unsightly traits. These minuter distinctions apply more particularly, however, to the greenhouse culture, than to that of out-door. But even here we have been offended at the want of good taste. Pot culture, at the best, is liable to great inconveniences; yet a degree of elegance, combined with artistic effect, has been repeatedly attained. In greenhouses of commercial gardens, we do not of course expect such niceness and propriety; nothing more beyond what will conduce to successful culture, and to the best disposal of the stock on hand. But, in private collections, how unseemly are crowded masses of pots, a multitudinous grouping of mere individual plants, all struggling for those elements of light and air which should belong by good rights to but a few only!—upright plants growing crooked and unsightly, for want of management; trailing kinds stiffly tied in unnatural positions, and others trained in modes where, what of beauty might be intrinsic in them, stands more than a fair chance of being lost. Every one knows how much depends on the contour of a greenhouse, that a most judicious management be regarded, so that the individual merits of each plant may be brought to light. A well-ordered private collection should excel in the propriety of its management, not only in the culture, but in the choice. If intended for display, elegant designs should be introduced: if for brilliancy, profuse flowering kinds, and these well grown: if for uniqueness, larger, rarer and more picturesque species: if for choiceness, the newer and later-known species and varieties: if for the effect of peculiar cultivation, those kinds which are best and only thus adapted: if for delicacy and grace, those of tenderer and lighter character. But in all, choice, taste, and artistic effect are essential, plenty of room, neatness of execution, adaptedness of design. In fine, other things considered in the right place, *choice* is the great desideratum; not rejecting some, simply because old, nor hastily making acquaintance with others, because they are new. For scarcely in any department of productive labor is it found more true than in horticulture, in all its branches, that that which is recommended for *new*, is not decidedly an improvement, nor that which is condemned as *old*, is henceforth of no value.

In out-door culture of the garden, the above observations

may also apply. The nature and capacities of the situation are to be consulted. Smaller areas should be devoted to humble and showy specimens; larger and wider should embrace a greater and more various growth. So numerous have become the objects of the florist's care, that scarcely any soil or spot could be found, which is not suited to ornamental improvement. For shade and for sunshine, for moisture and for aridness, for fertility and for sterility, for mould and for sand, for clay and for peat, may be found plants appropriate. For trellises and for arbors, for pillars and for pediments, for vases and for baskets, for fountain and for mimic lake, are the very flowers and plants which are needed. For all seasons of the year, from earliest April to chill December, are hardier or more delicate, little or larger floral gems, which may gladden the heart of the recluse or of the generous. Only, to have them enjoyed in their perfection, every one should strive to do them justice. So propitious and kind a deity as Flora, should not be mocked with a want of taste and sense of propriety. She reigns over the graces and elegances of life and of nature; she expects her devotees to pay her their homage in the same spirit and truth.

The Massachusetts Horticultural Society also, has done much to introduce a better and more correct public sentiment in regard to the value and importance of Horticultural pursuits. By its judicious and high-minded management, we can see yearly, the improvements which are taking place around us in this respect. If it were for fruits alone, that our gratitude should be shown towards this Society, it would be no small matter. But it has by no means stayed its efforts or its hands in these. For the creation of new varieties of superb flowers, we are deeply indebted to its members. For the enterprise shown in the introduction of every thing of foreign interest, we ought not to forget some, and not a few, who hold prominent and laboriously useful offices of its honor and trust. For its weekly displays of every thing which the season affords, from the newest and latest Belgian pear to the prettiest annual or more gorgeous perennial, introducing to notice whatever is thus curious and valuable. And for its annual exhibition, intended to gratify the public, and to encourage its members to a laudable and more earnest endeavor:

these are instances of the sagacity of its institution, and of the propitious results. It stands thus in a prominent and conspicuous point of view, and is recognized by its influence and effects, as in some measure the dictator of the public taste in those matters which more particularly concern it. To its tables resorts the inquirer after synonyms of undetermined or unknown fruits, or else to gather from the experience it has realized, some valuable information, which it is supposed capable of imparting. To its flower-stands resorts the inquirer after what is new or beautiful in floriculture, to learn something which interests him. To ascertain how some difficultly cultivated plant may be treated with success, goes the amateur, to find what he has not himself discerned. Of these, we have been. Much that is new, beautiful, curious, rare, valuable, we have thus acquired. We trust that a Society like this will continue to receive the public approval, and be the means of diffusing a correct taste as well as knowledge, in our midst.

The prominent as well as important situation in which this Society finds itself placed before the public, who look to it for the best and happiest results of Horticulture, in all its departments of operation, renders any thing savoring of a critical spirit, a peculiarly delicate affair. Yet, out of justice to the great and general cause for which the pages of this Magazine, Mr. Editor, are, we suppose, intended, we venture, with an attempt of a proper degree of modesty, to differ from the criterion of taste displayed in the Hall of the Society during the two last Annual Exhibitions particularly. We allude to those larger and smaller designs, which rendered a small space around the fruit tables still smaller, without adding any thing of general interest to the occasion. It seems to us a pity to destroy so many good, bad and indifferent flowers, dahlias, german asters, marigolds and eternals, by nailing them through the centre, like base coin, to wooden structures, called pagodas and temples, or sticking them on flat pieces of pasteboard, of the shape of battledoors, pentagonal stars, or any such devices. We know not, but that we are little better, perhaps little worse than barbarian in our opinion, but such it is, and we shall dare the censure of such judgment. Statues, vases, columns, temples, &c. &c., are all well enough

in their places; but, to our mind, they should be real. They should be works of art; not skeletons of wood made with saw and hammer and covered with fantastically arranged flowers, where the design is merely to make surface of masses of blossoms, or by pieces of moss and lichens glued on, to cover up the wood. In the open air, a bust, a statue, a broken column or a classic vase, are all attractive among embowering walks and sylvan shades. A rudely constructed arbor of crooked limbs of trees, naked or festooned with appropriate vines, would be a fit recess for Flora; and in larger and more extended grounds, a moss-house is very well, in the way of the picturesque, but such strange constructions of moss and withered flowers, certainly seem to be very much out of keeping, both with the Hall of the Society and with the intentions of Horticulture. We never have been able to look at all such efforts without a feeling that they were in a high degree puerile; and that they injured essentially the purpose and effect of public exhibitions of floricultural skill.

We have always had a great admiration for a bouquet. At any season of the year, such a bunch of flowers is particularly agreeable. But the very idea of a *bouquet* seems to imply the good old English and familiar word, *nosegay*; some prettily arranged and easily handled affair, which one could carry lovingly about with him, and regale his olfactories with the breath of more than Araby's odors. But think, Mr. Editor, of such a bouquet,—a nosegay a yard or two in length, filled with dahlias, marigolds, both scented, indeed, but by no means *perfumed*, amaranths and zernanthes, for blossoms, with a sufficient back-ground of greenery of various sorts and kinds! There are bouquets, to be sure, of gigantic proportions, intended as centre ornaments for vases; we like these; much genius and true taste can be displayed in forming them; but we do object to those frame-work and pasteboard *designs* which lean against the walls on either side of the hall, wherein nothing is to be seen of art or invention, and the whole matter lies in tying in place, or nailing to a flat surface. We by no means would discourage enterprise or talent; but let it have its legitimate sphere. A florist should be a cultivator of flowers; he should learn how to present them to the eye, with the best advantage and taste. He should learn how to

make them tell, so to speak; how to exhibit all their intrinsic charms. The fruit-grower should grow his fruit in such a manner as that he can realize all the healthful energies of that variety of tree, shrub or vine, which comes under his care. The saw and hammer belong only to him as accompaniments to the knife, to lay in wood, to prune out excrescent or useless branches. Both in their horticultural art follow nature, though they deviate from her at the same time. Nature is their mistress; to her general laws they are obliged to submit. The nearer they do this,—the happier they effect the union of their art with her laws, the more perfect their success. A finely cultivated plant displays more talent and skill than any number of pagodas of dahlias, or temples of hollyhocks. An elegantly grouped bunch of choice flowers, pyramidal or cylindrical in its contour, is far more attractive than hosts of moss-covered obelisks, decked off with stars of asters and wreaths of amaranths. For our own part, we would give more and go farther to see a single well grown rhododendron, or a new azalea, than all such efforts at effect, combined. Perhaps the trouble and expense of conveying choice and well cultivated pot specimens outweigh the advantages proposed; and that these more cumbrous *designs* can be fabricated on the very spot, and serve to make a show. This may be so; and there may be some weight in the observation; if so, we only regret the circumstance all the more. But certainly such is not the case with the others, with inelegant designs and strange perversities of withering, withered and long dead flowers. We do not presume that, if we are correct, our single anonymous suggestion will be adopted; if we are wrong in our condemnation, we are quite willing to remain in that predicament; nay, we rather prefer it to that of falling in with such notions, so contrary to our ideas of what would promote and encourage a floricultural taste in our community.

•We have taken the liberty, Mr. Editor, to use your pages on this subject-matter of our communication, (if you think it worthy an insertion,) because, as we set out, so we repeat, that it has given us pleasure oftentimes heretofore, to notice your efforts to promote that elegance and beauty of design in floriculture, on which its success depends. We trust that

you will be induced to continue in your course ; and by such suggestions as you derive from foreign periodicals, (not always to be followed, indeed,) and from your own observations, that your Magazine will, as its title imports, become the medium of “all *useful* discoveries and *improvements* in rural affairs.”

We have lately seen that a meeting of the proprietors of the Public Garden in your city has been held ; in which were taken some active measures to carry out the plans of that Institution, as modified and improved, by the introduction and planting of all native trees and shrubs, and by making it a pleasant and profitable resort of the citizens of Boston. We trust that efforts so laudable will be carried into effect ; and that success in *its* project will coöperate with the efforts of all lovers of horticulture, in elevating the public taste, and in thereby improving the public morals.

December 8, 1846.

ART. III. *Observations upon the Potato Rot.* By J. S. B.,
West Scituate, Mass.

As the disease which has affected the *Potato* for a few years past, both in the United States, and in Europe, has excited a great deal of anxiety among agriculturists, and is yet involved in some mystery, any attempt, however humble, to throw light upon this subject, and to explain the nature and progress of this disease, cannot fail to attract the attention of those engaged in tilling the soil, whose wealth and prosperity are more or less affected by this prevailing epidemic.

Having pursued, during the past season, a series of original investigations upon the subject, the following are the conclusions to which I have arrived. The disease has not prevailed so extensively this year as it did in 1845 ; but yet, complaints have reached us of its ravages in some places, and almost every where slight traces of its existence have been perceived. I discovered such indications in my own garden, and having the facilities at hand, determined to give the subject a careful examination.

It has been said that the *leaves* are first affected; and that the *withering* of these leaves, as if they had been struck by a *blight*, is the first sign or warning of the presence of the destroyer. But I am inclined to doubt the correctness of this statement. The *first* indication of the presence of the disease, is upon the *haulm* or *stalk*. This, if carefully examined, will be found to be covered with minute *black specks*, strikingly resembling in appearance the excrement of the fly, and visible to the naked eye. These specks are a species of *fungus*, which attacks the plant, in most cases very suddenly, and which, in my estimation, is the chief cause of the *rot*. As soon as their *roots* (for they are *parasitic*) have penetrated through the cuticle of the stalk, the *sap*, from which they derive their nourishment, becomes vitiated, and the *withering of the leaves* is the immediate consequence. This withering of the leaves affects the *health* of the plant, and renders it more susceptible to the attacks of the fungus. Soon the *pith* of the stalk becomes diseased, and, if examined with a lens, will be found to contain many of these *black specks*, showing that the fungus is *there*. Finally, it extends down the stalk to the *roots*, or parts connecting the *stalk* with the *tubers*. These roots are completely *hollowed out* by the fungus, or in other words, their interior is entirely *destroyed*, or, eaten up. The *skin* of the tuber is next attacked, and this becomes *discolored*. By lifting up the skin carefully, and examining the tuber with a lens, the same black specks will be found, showing that the fungus is *there*. Last of all, the roots of the fungus penetrate the cells of the tuber, destroy their texture, and, by breaking down their walls, the contents of contiguous cells are brought together, and corruption, or putrefaction ensues. This is the last stage of the disease, or the *rot*. The above is a brief sketch of the progress of the disease, which I have endeavored to clothe in language comprehensible by every farmer.

In harvesting a field of potatoes, those who have carefully noticed the *appearance* of the stalks, have been able to tell *what hills were affected by the rot, and what were not*; and not only so, but the same observation enabled me to tell what tubers in any particular hill were affected. The *stalks* of those hills which are affected, are rotten at the bottom, near

their connection with the root; that is, their texture is entirely destroyed, and they are in a brittle, decayed state. Sometimes one stalk only in a hill is in this condition, and the tuber or tubers connected with that stalk, will be found affected with the rot.

After the potatoes are harvested, those on which the black specks above described are found, will decay; but in the process of decay, I have not found that they affected *sound tubers*, and caused them to rot. *The disease cannot be communicated in this way; it must pass through the several stages aforementioned.* There may be instances in which tubers slightly affected, or containing merely the germs of the disease, from peculiar causes, will remain sound through the winter, and it may be in this way that the disease is propagated from year to year. But of the correctness of this suggestion, I am not fully satisfied. It needs to be confirmed by observation. Those who are acquainted with the natural history of the Fungus tribe, are aware, that their sporules, or seeds, are exceedingly *minute* and numerous. Probably *millions* proceed from a *single plant*. Besides, these seeds are so light, being but a mere dust, as seen by the naked eye, that they are easily wafted about, and so minute, that they might attack a plant without being perceived, until they had reached their maturity. It is owing to this, that the disease prevails so extensively, and it may be that it has thus been propagated even across the ocean. The wide prevalence of the disease, indeed, will be no matter of surprise to those accustomed to the enlarged views of the diffusion and propagation of plants, which an acquaintance with Botany furnishes.

I have prepared specimens, illustrating the progress of the disease under consideration, which I should be happy to show to any one desiring further information. The fungus which attacks the potato is very small, so much so, that it is probable there are no glasses of sufficient power to render their seeds visible. Yet, that they have seeds, no one can doubt.

The specimens to which I have alluded, show the fungus upon the *outside* of the stalk; next upon the *pith* or *inside*; next upon the *interior* of the *root*; next upon the *skin* of the *tuber*; and, last of all, in the *cells* of the *tubers* themselves. I have also prepared specimens, showing the different appearance of the healthy and the diseased plant.

In an article published by Mr. Teschemacher, in the *New England Farmer*, about two years since, he attributes the disease in the potato to a fungus, and states, that to discover a remedy for the disease, he applied various substances to the fungus, to effect its decomposition; and names *salt* as the first application. "The action of this was so instantaneous and decided," says he, "that I did not proceed to any other. A portion of the dark substance was placed on a piece of glass on the microscope stand, in a drop of distilled water, and then thoroughly examined: a little salt on the fine point of a pen-knife was then added; a nearly instantaneous change took place; the dark-colored masses separated, much of them seemed to pass away, and instead appeared numerous dark slate-colored globular bodies, which I easily recognized as the spores or reproducing bodies of the fungus." Having the above article by me at the time I pursued my investigations, I repeated the experiments first tried by him; but not with similar success. The decomposition of the plant was not effected; nor was I able to discover the *spores*. Three several times I repeated the experiment, but with no different result. I did not try either of the other substances mentioned by him, as time did not permit.

The disease called in Germany the *Potato scab* or *wart*, and which Dr. Wallworth ascribes to a species of *subterranean* fungus, which he calls *Erysibe subterranea*, cannot be the same, I think, as the Potato rot, for this is not caused by a subterranean fungus, but by one which attacks the stalk of the plant, as I have already stated. Mr. Teschemacher, in a subsequent article in the *New England Farmer*, appears to be of the same opinion, and the remarks which I have offered upon this disease will be found, in the main, to agree with his.

A writer in Silliman's *Journal of Science and Arts*, for September, 1845, states that it "cannot be said with certainty that the disease first appears as a fungus upon the leaves;" and that "there are well authenticated instances where the potato tops have remained green and flourishing, while the tubers were much diseased." In this statement, I am inclined to think there is an unintentional mistake, which has arisen from want of accuracy in the observations. There may be well authenticated instances of diseased tubers in

hills where a *part* of the tops were green and flourishing; but I think if *all* the tops had been closely examined, some *one* would have been found affected, and that one communicating with the very tubers which were rotten. I am fully convinced, that the disease is caused by the fungus in question, and that it first attacks the stalk.

In the remarks of Professor Playfair, in his Lectures delivered before the Royal Agricultural Society, in London, reports of which were published about a year since, he attributes the disease to the destruction of the cellular walls of the tuber, and in this he follows Liebig, the scientific German chemist. But this destruction of the cells, it appears to me, is not the *primary cause* of the disease, but an *effect*, as I have already stated, of the penetration of those cells by the roots of the fungus. Most of the phenomena described by both the above gentlemen, may be discovered *attending* the disease; but its true cause lies behind those phenomena. That there is any constitutional weakness affecting the cellular tissue of the potato, I am inclined to doubt. We have had peculiar seasons, both here, and in Europe, for the past three years; seasons which have been highly favorable to the generation and propagation of Fungi, and they have been *remarkably abundant every where*. It is these fungi that have attacked the potato, and produced the disease. I believe its prevalence to be owing, or attributable, to the peculiar state of the atmosphere; and that no specific, or infallible remedy for the disease, has been yet discovered. It may disappear in a few years. A change in the atmosphere may render the reproducing spores of the fungus inert for a time sufficient to destroy them, and this may check the disease. I indulge in no apprehensions for the future. A merciful Providence watches over us all, and in his goodness we may safely trust.

West Scituate, Mass., Dec. 1846.

ART. IV. *Zinc Labels for Trees.* By J. OWEN, Cambridge.

IN the last number of your Magazine, you have described a kind of label for trees, which comes near enough to a

method practised by me, for several years, to induce me to think that you alluded to a conversation I had with you on the subject a short time since. I have now written out my method, and accompanied it with some explanations. If you think the genuine reading of any importance, you are at liberty to give it a corner in your next number. A great objection to the use of unpainted zinc, marked with a lead pencil, one of the modes adopted by your correspondent, is the indistinctness of the writing, the color of the zinc and of the pencil mark being nearly the same.

Loudon, in his great work on Gardening, has enumerated many kinds of tallies used in England, no one of which combines, to so great a degree, those essential advantages, durability, convenience and economy, as the painted zinc. Even for mercantile purposes, I think this will prove the most convenient mode to nurserymen, and be highly useful to purchasers, most of whom, with the loss of the common wooden labels, soon lose the names of their fruit trees, about which they remain indifferent, till at length the different varieties begin to bear. Then curiosity is excited to identify the kinds. The greatest confusion follows. Serious mistakes are made and perpetuated. A large and dear experience is necessary, before the amateur can separate the wheat from the chaff, distinguish the genuine from the spurious, and at last arrive at even a tolerable degree of certainty in the nomenclature of fruits.

I send you a few tallies, as specimens of the various methods I have used, at different times, while seeking for something better than the "good old way."

Cambridge, Nov. 21, 1846.

METHOD OF MAKING THE LABELS.*—Have ready a sheet of zinc, which must be perfectly clean. Take the purest white lead, ground in oil; thin it with *spirits of turpentine*, in place of oil; add *mastic* varnish (*copal* turns the paint yellow,) sufficient to make the composition adhere well to the zinc and give it hardness, but not in excess, which

* Any tinman will furnish strips of clean zinc, cut them into pieces of two square inches, after being painted, and punch them, at the rate of 25 cents per hundred. This would be cheaper than to use whole sheets.

would render the surface too smooth. Apply the paint thin, with a common painter's brush; the newer it is the better. Let the paint dry, in a clear sun, a week at least, when another coat may be added. This should be suffered to remain a fortnight, if possible, in order to acquire greater hardness before being cut; otherwise the edges will be rough, paint being apt to peel from metallic surfaces when first applied.

The zinc may now be cut into pieces, two inches long by one wide, and punched at least half an inch from one end of each tally, in order to allow of some wear from the wire used to attach it to the tree. The best wire is made of copper. Narrow strips of sheet lead are sometimes used, but, besides being more clumsy, they are not stiff enough. Iron rusts away in a very short time, besides not being so tough as copper. No. 23 copper wire may be bought for 50 cents per pound, which will cut into 640 pieces of 8-inch lengths.

From the liability of the tallies to twist off a fine wire in high winds, this size is none too large. The French nurserymen mark their trees, when sent out of the nursery, with bits of lead a half inch square, having a number stamped on each, and for such mercantile purposes, find a much finer wire sufficient. But when it is desirable to write the name of the tree in full, which is generally the case when a tree is planted out, more surface is required, and of course a larger wire is necessary to prevent its being broken by the wind. It is a better way yet, to rest the tally against a twig, or, if the tree be small, and without convenient twigs, to bend the wire round the stem and tally together, for the first year, taking care to guard against rubbing on the written side. This will prevent the friction of the wire on the zinc, which is sometimes so great as to cause the tally to drop and be lost.

The best material for writing upon the tally, is a common black-lead pencil. It is not only the most convenient, but perfectly durable, time rendering the marks almost ineffaceable. If the pencil be tolerably hard, and cut to a fine point, you can write many things on a very small surface. Besides the name of the tree, other memoranda, as one may wish, may be noted at the time of planting, and afterwards, as in grafting anew, making experiments, &c. They may in this way be made to relate their own history to many generations,

and, though nature alone can give them "tongues," art can give them tallies, the inscriptions on which will often be more interesting to the amateur; (to his shame be it said,) than the higher and more mysterious language of nature.

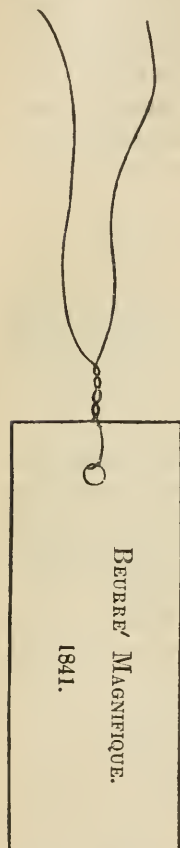


Fig. 1. Zinc Label
for Trees.

We are obliged to Mr. Owen for a communication of his mode of making zinc labels, which was the plan we had reference to in our remarks appended to the article of Mr. Phillips, (XII. p. 426.)

Accompanying the above, Mr. Owen sent us several specimens of the labels, an engraving of which we have annexed, (*fig. 1.*) showing the size and form. The specimens show the effect of the painting when properly or improperly mixed. One, with mastic in excess, does not take the pencil mark readily. Another, with copal in excess, takes it rather better, though quite indistinct, both having too glossy a surface; a third, painted one coat, in proper proportions, in August, written upon November 23, and exposed to the weather until December 10th, gives the pencil mark such permanence, that it can only be removed by the aid of sand. A fourth specimen shows the effect of wetting the surface of the label when the writing is made, which gives it a blacker and more distinct mark. One label, written upon in 1841, but twisted off by the gale of Sep-

tember last, has the mark as distinct as those that have not yet been exposed to the weather. To show how much may be written upon one label, we copy the following from one sent us by Mr. Owen, and occupying only a portion of *one side*.

Beurré Diel. Planted Nov. 21, 1841; proved spurious. Grafted Aug. 13, 1842; bore in 1845.

We have only one cautionary remark to make,—that is, that

in all tallies which are attached to trees with wires, especially when it is necessary to twist the wire, that it may prevent the label from rubbing, care should be taken that they are looked at, at least every spring, in order that they may not girdle the branch. We have had imported French trees, with the lead tags, mentioned by Mr. Owen, attached, which were badly girdled from inattention to this. It is also best to attach the label to a small lateral shoot, rather than the main trunk, or any of the principal branches, as a little neglect will not then be attended with so much injury.—ED.

ART. V. *A Comparative Notice of the Hog and Jerusalem Artichokes, with a descriptive account of the growth, habit, and use of the former variety.* By DR. M. A. WARD, Athens, Ga.

PLEASE to express my thanks to those of your correspondents who have so kindly criticised the error in my note on the Hog Artichoke, published in the July No. of your Magazine, (XII. p. 268.) They might, without departing very surprisingly from the usages of the times, have charged me with ignorance, stupidity, or even with some moral dereliction; for, unhappily, a spirit of bitterness has of late been creeping into the discussions or controversies which are found in some of our Horticultural periodicals, that would seem more congenial to the arena of political gladiators, than to the garden, with its serene pursuits and researches, the tendency of which should be to excite emotions of admiration and benevolence, rather than of rancor and uncharitableness. My fault,—and it has mortified me much,—was but “*a slip of the pen*,” at which I was myself as surprised as I was to see it in print at all;—for my note to you, written in the greatest haste, was intended merely to call your attention to the subject, without a thought of publication.

And now, while my pen is in the apologetical humor, I believe I may as well forestall future criticism, by begging pardon in advance, for another hasty act. It would certainly have been more safe, as well as modest, to have written the

words "distinct *variety*," instead of "distinct *species* of *Helianthus*." I hope, too, that I have wounded the feelings of no one by an implied distrust in the ability of other botanists, to settle this little matter, by naming Drs. Torrey and Gray, as those with whose determination I should rest quietly satisfied; for it is well known that the characters of the species in most of the order Compositæ, especially in the large genera, are often obscure and puzzling,—requiring great practical skill and access to the most recent published descriptions and collections of dried specimens, to enable one satisfactorily to settle the name of a kind which he has never seen before.

My opinion, when given, was based principally on the difference in the form of the tubers;—and it is, I believe, a received canon in Botanical nomenclature, that a difference in the structure of any of those parts from which the specific characters are taken,—provided it be constant, and propagated by seed, shall be regarded as a sufficient ground for bestowing a different specific name. It is true that I have not applied the test of raising them from the seed, but I have, for several seasons, grown the two kinds, side by side, in my garden, and note the following distinctions:—

The tubers of the Jerusalem artichoke, (*fig. 2*) are commonly produced in a compact clump around the foot of the stalk, sel-

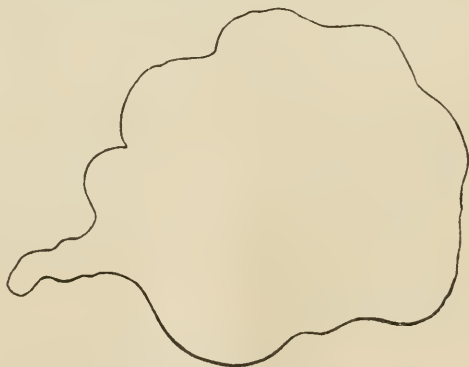


Fig. 2. Outline of a tuber of the Jerusalem Artichoke of the natural size.

dom spreading over an area of more than 12 or 18 inches in diameter, but often lying touching one another like eggs in a basket. Their general form approaches the globular, and in

the smaller specimens often attains it: though they are frequently very irregular with knobs and protuberances, which are always obtusely rounded at the end. Those of the Tennessee or Hog artichoke, (*fig. 3*) are three or four times less in



Fig. 3. Outline of a tuber of the Hog Artichoke, nearly of the natural size.

size, but vastly more numerous, formed both along the course of, and at the extremities of stolones, which extend, variously branching and interlaced, so as to form a thick mat over a space 3 or 4 feet across. Those who are sceptical with regard to the doctrine that Irish potatoes are not *roots*, but modified *stems*, I think will have no doubts as to the nature of these productions. In form, they are always long and slender, acutely conical at both ends, though thickest towards their distal extremity, which terminates not with a mere eye, or bud, but with a regular built *crown*, as in the tuberous roots of *Convallària multiflora*. In some, now before me, not larger than my little finger, this commencement of next year's stem projects an inch, and has already put forth fibres three inches long. I am told, but have not observed the fact myself, that these tubers remain solid and succulent in the spring, long after those of the common sort have become corky or hollow—a property which greatly increases their value, as food for hogs.

The stems of the Jerusalem artichoke, as they commonly stand less thick on the ground, are larger in diameter, the epidermis green, but, on the upper part and branches, thickly sprinkled with minute brown spots, or tinged of a purplish brown *on the side next the sun*. Those of the new sort attain about the same height, but are more branched, the

branches long and slender, and *entirely of a bright purple* hue. The flowers of these expand the soonest by 10 or 14 days, the petals of the ray longer, often twice as long as the other, and the plant altogether makes a more gay and striking appearance. Indeed, a field of these, of from 5 to 10 acres, or even of one acre, viewed from an elevated distance, in the month of September, adds a very remarkable feature to the landscape.

Now it may be that these differences are those of a *variety* only, for so far as I can see, the *specific* character given by Linnæus, "H. fol. ovato. cordatis trinervüs," and even the recent one in Eaton's *Manual*, "Leaves 3-nerved, scabrous; lower ones heart-ovate; upper ones ovate, acuminate; petioles ciliate; root tuberous,"—will apply quite as well to one sort as to the other. Still if it be true, as is most probable, from its having been introduced into this country from that direction, that its native habitat is Texas, or Mexico, whilst the old one hails from Brazil, I shall continue to think, till the matter is settled by authority, that the new *sort* is also a new, or at least a different *species*.

As to the *taste* of hogs for them, it seems to be an *acquired* one, like that of men for oysters, or pickled olives. They almost always reject them at first, but after a while begin to relish, and then become ravenously fond of them,—turning up and pulverizing the soil to a great depth, in search of the smallest fragment.

There is a great difference of opinion as to their value in an economical point of view; some unhesitatingly pronouncing them a humbug, while others think they are destined to produce as important a change in our rural economy, as did the introduction of the root culture into England. For myself, I believe that, with judicious management, they may be made to reduce greatly the expense of raising pork—and that they would be well worth cultivating, were it only for their effect in renovating the soil.

Athens, Ga., Nov. 16, 1846.

ART. VI. *On the Cultivation of the Pelargonium, with a Description of Several New and Fine Seedlings.* By EDWARD BECK, Esq., Worton Cottage, Isleworth, near London.

It is with much pleasure that we announce to our readers, that we have been able to secure the assistance of Edward Beck, Esq., one of the most successful amateur cultivators of the Pelargonium, as an occasional correspondent of our Magazine. Mr. Beck has been particularly successful in the production of new varieties of pelargoniums, and his seedlings of the last three years have annually carried off the first prizes, at the Exhibitions of the London Horticultural and Royal Botanic Societies of London, for this most beautiful but far too lightly prized flower by our amateur cultivators.

Mr. Beck has also been one of the most successful cultivators of roses in pots, which have recently been made objects for prizes by the London Horticultural Society, and his gardener, Mr. Dobson, obtained the highest prize for the best twelve varieties. But so wedded to the cultivation of the pelargonium is Mr. Beck, that he has offered his whole stock of roses, the finest collection in pots in the kingdom, for £50, and he states, to use his own words, that "I find if I am to be as successful as I desire, I must not undertake too much, or something will be neglected, so I make every thing subservient to pelargoniums. I grow some choice orchids, but they are, at times, shamefully neglected, though we often show them in my slate articles* very creditably, and now and then pick up a prize." This is the true way to acquire great results, for

* Mr. Beck is an extensive manufacturer of SLATE pots, which are finely adapted to large Camellias, oranges, &c., and they may be obtained at the annexed prices in London :—

						s. d.
12 inches square,	-	-	-	-	-	6 0
14 " "	-	-	-	-	-	11 0
15 " "	-	-	-	-	-	12 6
16 " "	-	-	-	-	-	16 0
18 " "	-	-	-	-	-	19 0
20 " "	-	-	-	-	-	22 6
22 " "	-	-	-	-	-	25 0
24 " "	-	-	-	-	-	32 0

We hope some of our extensive cultivators will import a few and try them. We intend to do so. They are far better looking than the unsightly tubs generally seen.—*Ed.*

amateurs too often, with little time to devote to their gardens, and unwilling to incur great expense, grasp at too much, and too frequently have but little to show either creditable to themselves, or gratifying to their friends.

Last year, Mr. Beck raised about 3,000 seedlings, out of which he has kept, for a second year's trial, from *twenty to thirty* plants. Of every plant he keeps for trying a second season, he saves only two or three cuttings which he continues to grow; and these, when their merits are fully proved at the exhibitions of the second season, are propagated for a stock. Mr. Dobson, he informs us, has his stock "in wonderful condition, both seedlings, yearlings, and two years' old. The latter I am particularly interested in, because there are some entirely novel points in their characters." Another season, it is his intention to publish an illustrated catalogue, which shall exhibit the true characters of the flowers, the *faults* as well as the merits.

Mr. Beck is, strictly speaking, an amateur cultivator, but the fame of his seedlings spread far and wide, and there were so many applicants for his plants that he was induced to offer them for sale; and to such an extent has the demand been, that the past season, his orders exceeded in value *three hundred pounds sterling*, for young plants to be delivered in October. No better test is needed to show the great merit of his seedlings.

Pelargoniums, like many other plants of easy and rapid growth, which every body thinks there is no art in cultivating, are too frequently seen in any thing but the real condition in which skilful and judicious treatment will bring them; and the errors also lie as much in cultivating *too highly* as in not cultivating at all. The very large plants which are often exhibited, and which now continue to form highly attractive objects at the Horticultural Exhibitions, may be, and undoubtedly are, fine specimens of what art may accomplish, so far as growth, form of the plant and abundance of bloom are concerned; but the quality of the flowers is generally—we might say always—sacrificed to the luxuriant growth of such huge specimens. Witness what Mr. Beck writes us on this head:—

"Let me, while on the subject of these plants, remark, that,

if you want to see fine flowers, the pots must be filled with roots, the foliage ceasing to be luxuriant previous to the bud's expanding; this throws the remaining vigor of the plant into the flowers, and then you will see them in their true characters on the two year old plants. I assure you very candidly, if my varieties had been shown by *Mr. Cock* only last season at our exhibitions, the flowers would have been entirely condemned, his plants were so fine, the bloom so bad. But happily our collection was always there to vindicate my judgment in sending them out. In no one instance last *season*, did I see my productions in their true character, all aiming at large specimens, had their plants growing when they should have been flowering, the foliage, in some cases, running over the bloom."

We do not, by any means, wish to condemn the practice of growing large plants; on the contrary, we have recommended it: but then we should not do so with kinds intended to show the delicacy of color, or excellent pencillings, which constitute the real beauty of the pelargonium. But large specimens form handsome *show plants*, always admired, and to fill up the tables of a Horticultural Exhibition, most prominent objects.

We trust our remarks, with the following hints on their cultivation by Mr. Beck, will have a tendency to redeem the pelargonium from the neglect to which amateurs seem to have consigned it. In England, the choice kinds command a rapid sale, as we have just seen, at prices rarely less than *one pound*, and from that to *two pounds two shillings sterling* per plant, exceeding even in value, taking into consideration its rapid propagation, almost any other plant. But with us, *fifty cents* is the standard price, while a camellia, or some other plant far less suited to parlor cultivation, commands quadruple that sum. We would suggest to the Massachusetts Horticultural Society, the propriety of establishing prizes for the exhibition of the pelargonium, with a view to bring it into proper estimation: a series of prizes, on the principle of the London Horticultural Society, which has been highly advantageous to a just appreciation of its great merits, and at the same time given it a rank *first* among the amateur collections of plants. That plan is as follows:—

Pelargoniums in collections of twelve new and first-rate varieties cultivated with superior skill, in eight-inch pots. Gold Banksian medal, £7. Silver Gilt, £4. Certificate of excellence, £2 10s.

Pelargoniums, in collections of twelve varieties in eleven-inch pots. The same medals. [These are the large specimens.—*Ed.*]

Scarlet Pelargoniums, in six distinct varieties in pots not less than eleven inches in diameter, Silver Gilt medal, £4. Certificate of Excellence, £2 10s. Large Silver medal, £1 15s.

To be *disqualified*, if not really fine.

Some such arrangement, reducing the number of plants to *six* in the place of *twelve*, if thought expedient, the better to accommodate amateurs, with one of the Society's, or one of the Appleton Gold medals, and two or three smaller prizes, would be the means of at once rescuing this flower from the *commonality*, if we may so use the word, into which it has of late fallen. May we not hope that our hints will be duly weighed before making up the list of prizes for 1847?

We now come to the directions of Mr. Beck for the full cultivation of the plants, as laid down in a small treatise published by him, but which, being now out of print, we publish, to save the author the labor of rewriting:—

REMARKS.

The following remarks upon the management of the pelargonium, are principally intended for the guidance of private growers; for the method of training adopted by exhibitors is not that which I think best calculated to make the finest display upon the home stage. It is requisite that plants intended for exhibition should have every truss carefully supported by a stick, or they would not bear the transit without considerable injury; this gives them a stiff, unnatural appearance, very different to that where Nature predominates over Art. Again, for exhibition, it is requisite that the flowers should be much closer to the foliage than is desirable in a private collection. If the accompanying directions are followed, the plants ought to be close and bushy until the end of April, when the flower-stalks should push boldly above the foliage, so that when the whole are in flower, the eye should rest on a rich varied sheet of bloom, unbroken by the disfigurement of the innumerable sticks so offensive at our great Metropolitan Shows. I have endeavored to give the colors accurately; but the tints are so varied, and called by such

different names, that it is no easy matter to convey right impressions to all minds.

SOIL.

This should always be in stock. A top spit of turfy loam in alternate layers, with the muckings out of the stable, allowed to lie in a heap till the straw is well decomposed, and then turned repeatedly in frosty weather until well incorporated, forms an excellent staple, and should be placed under some open shed, and protected from washing rains. Cow-dung, several years old, when it assumes the appearance of black mould, peat that contains plenty of vegetable fibre, and the best silver sand, should be housed in a similar manner. Presuming a provision of this kind to be at hand, we will follow the plants as they go from my stock.

POTTING FOR WINTER.

They are sent out by me in four-inch pots, and well established; shift them at once to a six-inch size, with plenty of crocks, into a compost of two-thirds turfy loam, as above described, not sifted, only rubbed down, and the larger stones picked out, and the remaining third peat and silver sand. Promote their growing freely until they have rooted well round the pots, then keep them quiet by withholding water as much as possible, and by giving them abundance of air; *pinch* the tops off the shoots, leaving not more than three eyes to break from.

POTTING FOR BLOOMING.

At the beginning of February, shift them again into eight-inch pots. An oyster shell over the hole, and a less quantity of crocks, will give abundant drainage. Let the soil be three fourths turfy loam, the remainder silver sand and cow-dung. Rub off by hand the outside and top of the ball; pot moderately solid; bury a portion of the stem if too long; support and train out the leading shoots, if possible, to short sticks, and water with a rose. Keep them close, to encourage their rooting; then give them air at every opportunity, but avoid doing so in cold easterly winds, which are always better excluded.

FIRE HEAT.

Ought to be withheld as much as possible. If the house is fitted with roller blinds and curtains for the front and ends,

several degrees of frost may be excluded by their use ; and if we set the fuel saved, and the better condition of the plants, against the wear and tear of blinds, we shall find ourselves no losers by their use. In severe weather, do not let the fire heat, particularly at night, raise the temperature above 45 degrees. Pans of water for evaporation, placed on the heating apparatus, whether pipes or flues, will be found valuable.

BLOOMING.

In April, we begin to arrange for this interesting time, now at hand. The blooming shoots should be trained out by sticks, that ought not to appear higher than the base of the flower-stalk : the truss that will not support itself is either drawn or unfit for the amateur's stage. Air should be freely given from early in the morning till two, three, or four o'clock, when the sun warmth should be shut in, and the syringe occasionally drawn over them. The water should be rain, conducted from the roof into a tank under the stage, or other convenient place, where it will be kept at the temperature of the house—*an important point*. At the end of this month, the eye, brought to a level with the plants, should look horizontally over a surface of buds standing above the foliage, similar to a crop of barley, when ripening.

FUMIGATION.

At all times, the plants should be kept clean ; but previously to the flowers appearing, it is indispensable that not a green fly should be allowed to exist ; fumigate, therefore, whether aphides be detected or not.

STAGING.

The arrangement of the plants on the stage, when they are in bloom is a point deserving of attention, for the general effect is very much heightened thereby. Some flowers, which will not bear a nearer situation, are striking when placed at a distance from the eye ; then again, placing the most opposite colors side by side displays them to much greater advantage. But on this point I need not enlarge.

BLINDS.

To preserve the flowers in bloom, the bees must be carefully kept out ; nothing answers better, for this purpose, than cheap open muslin blinds, about 4*d.* per yard. By this means, the light and air will be freely admitted, while the insects are

effectually excluded. [This is very important ; we have had many other flowers injured by bees, as well as pelargoniums, especially azaleas, and if bee-raisers knew the injury their bees do to their neighbors, they would banish them from their premises. In very large greenhouses, it will be attended with trouble and expense to put up the blinds recommended by Mr. Beck, but where there are bees, it must be done, or the flowers will be quite spoiled.—*Ed.*]

CUTTINGS

Should be taken off the plants when they can be got. They strike more readily early than in autumn, and, in addition, they make finer plants. If not obtained before, they must be selected at the general

CUTTING DOWN.

This is generally in July. The plants should be allowed to become quite dry, and then be cut back as closely as the leaving sufficient eyes will allow. They should be kept in the greenhouse, and have plenty of air until the wounds are healed, then be watered and kept close, to induce them to break strongly. This they will soon do, and the shoots lengthen to an inch or more, when they should again be allowed to dry, be shaken out, the roots cut boldly back with a sharp knife, and repotted into a six-inch size. If plunged into gentle bottom-heat, they will soon root round the pots, and be in a state for the same course of treatment which they received as young plants. [In our dry climate, the plants may remain in the open air, where they heal up rapidly enough. Neither is it important to plunge the plants in bottom heat, after they are potted.—*Ed.*]

STRIKING.

This is performed in a variety of ways. Mr. Cock, than whom there is not a more successful exhibitor, strikes all his cuttings in the ground under a hand-glass, without heat. Our method is to make a very open compost from a large admixture of sand, then plunge them on the surface of a tank, covering them with hand-lights, kept close during the day, and removing the tops at night. In this way, Mr. Dobson is very successful. The average time they take to emit roots is three weeks, when they are potted singly into small sizes, and when well rooted, they are shifted into the four-inch pots, in

which they are sent out. [In our fine, dry, and warm climate, especially in July, the mode adopted by Mr. Cock is full as successful as that practised by Mr. Dobson.—*Ed.*]

I would conclude these observations by remarking, that a different treatment to the above, in many particulars, may be followed with equal success. Practice and observation are far better instructors than the most careful directions. Season, situation, soils, &c., exercise their influence, and produce different results, even when the course of treatment is precisely similar. But it may be taken as a rule, that neglect will be followed by its natural consequence—inferiority both of specimens and bloom. He who waters his plants without first ascertaining whether they require it, must not be surprised at the appearance of the spot, or at their dying altogether. He who allows them to be crowded together in ill-ventilated houses, must expect them to be drawn in foliage and flower; and he who purchases the new varieties, and allows them to remain till April in the pots they are sent out in, starving for room, and filthy with fly, must not expect to see the blooms exhibiting their true character, or answering the expectations of the purchaser.

DESCRIPTION OF MR. BECK'S PELARGONIUMS.

Seedlings of 1845, sent out October last.

Aurora, raised in 1844, and unequalled in my collection.—Eye very striking, purely white at the base of the back petals, which are of a rich glowing crimson, inclining to scarlet, with a deep blotch, leaving merely a lighter edge; bottom petals of a fine glowing crimson; good substance, free bloomer, and excellent habit.

Received prize at Horticultural Society's Exhibition, 1844, and the highest prize at the same, 1845, and at the Botanical Society's Exhibition also.

Competitor, 1845.—A rich-colored flower, top petals covered with an even tint of velvety-maroon, leaving a narrow rim of rosy crimson on the edge; centre of the flower light, slightly tinged with blue, with lower petals of a bright rosy purple, with a deep rose-colored spot in each; free bloomer and good habit.

Received the prize at the Horticultural and Regent's Park Exhibitions, 1845, and the medal at each of the same exhibitions this season.

Hebe's Lip.—Velvety-crimson top petals, with dark spot gradually shading off to the margin; white centre, with bright rosy pink under petals; large flower, free bloomer and good habit.

Shown at Regent's Park only, 1845, and obtained prize. Exhibited this

season at Horticultural Society's Exhibition, and Regent's Park, and received a medal at each.

Bacchus, 1845.—A fancy flower of very fine shape, the upper petals a deep maroon, with a narrow border of rose; centre white, rose-colored under petals, having dark clearly defined veins and blotches in each; excellent habit and free bloomer.

Shown only this season at Chiswick, and obtained the Silver Banksian Medal.

Patrician, 1845.—Very finely-formed flower, rosy pink lower petals, with dark top ones changing to rosy crimson on the edge; excellent quality, habit and bloomer, but more common in colors than the others.

Shown at the Botanical Society's Exhibition, 1845, and received a prize; and this year at the same, and obtained silver medal, and at Chiswick, and obtained certificate of merit.

Resplendent, 1844.—Rather small flower, the color of Foster's *Conflagration*, with a whitish-tinged eye and a well-defined spot; a free bloomer and good habit.

Shown for the scarlet prize at the Botanical Society's Exhibition, 1845, and obtained it.

Sirius.—A large-sized crimson-scarlet flower, of excellent quality and substance, and has been much admired in my collection.

Gigantic.—This is sent out as a Trade flower only. It is of great size, forming large and abundant trusses, making a striking object on the stage, and is also well adapted for exhibition, particularly in the country.

[The prices of these are £1. 11s. to £2. 2s. each.—*Ed.*]

I beg to remark, that their characters are not my own, but taken from the Reports of the Exhibition, with the exception of the two last.

Seedlings of 1844, sent out October, 1845.

If the Exhibition Lists are consulted, it will be seen how often the following have been shown and obtained the highest prize in the class "New and First-rate Varieties."

Arabella.—A beautiful flower, with white centre; ground-color warm rosy pink; deep blotch on the top petals, softening into crimson; free bloomer, good habit, and constant.

Othello.—A flower of novel character; the upper petals of a deep even purple color, surrounded by a perfect margin of a rosy tint; under petals of an even rosy purple color; close habit, and not an abundant bloomer.

Desdemona.—A striking flower, from the great contrast between the upper petals, which are a rich maroon, surrounded by a narrow rim of pink, and the lower ones, which are a pinkish white, terminating in a white centre; good habit, free bloomer, and constant. This flower has an inclination to twist.

Marc Antony.—To deep-colored top petals, bordered by a narrow rim of light rose, are united bottom ones of light rosy pink; in the centre of each is a purplish spot; good habit and free bloomer.

Isabella.—Delicate warm pink under petals, uniform in color, short and

well rounded ; top petals deep bright maroon, softening evenly to the edge, which is of a warm pink, similar to the under petals ; free bloomer and good in habit.

Mustee.—Handsome large flower ; ground-color delicate warm pink, with a steady purple maroon blotch ; good habit, and free bloomer.

Rosy Circle.—Fresh rosy color, dark, well defined spot ; good round stiff flower ; profuse bloomer, and constant.

Favorita.—This flower is inferior to *Foster's Favorite*, but sufficiently like it to be mistaken for it. Its good quality consists in its constancy ; and, from its habit of growth and bloom, it is desirable for either the private stage or exhibition table.

Margaret.—A small, smooth, good-shaped maroon-colored flower ; profuse bloomer ; the lower petals flat, pink ; the margin on the upper ones is of a bright tint.

Zenobia.—A very attractive flower, but defective in its general form, the lower petals being too pointed. Its novelty consists in its massive mulberry spot on the upper petals, margined with rose ; centre white, lower petals delicate pink ; profuse bloomer, and good habit.

ART. VII. *Descriptive Account of Thirty-two Varieties of Grapes, fruited in 1846 ; with Remarks upon their general qualities, &c.* By J. F. ALLEN, Salem, Mass.

BELOW is a list of the grapes which I have grown under glass, and exhibited at the rooms of the Massachusetts Horticultural Society this season, with a description of them.

By the term, "hangs well," may be understood that the fruit will keep on the vine, after it is ripe, sixty days, or more ; provided, that proper attention is given, to keep the house dry and well aired : by a "late house," is meant one in which fire heat is applied in autumn, to ripen and preserve the crop.

BLACK HAMBURGH.—More extensively cultivated, and deservedly so, in the vicinity of Boston, than any other grape under glass. It is a great bearer, the flavor very rich and sweet ; bunch large, shouldered alike on both sides ; berries roundish and sometimes elongated, large, and, when well grown, very black, with a thick bloom. Good for forcing, cold, or a late house ; hangs well. It was sent to England about eighty years since from Hamburgh, and this name giv-

en to it there : in the north of Europe, it is grown by the name of Frankendale, which is probably the true one.

WILMOT'S NEW BLACK HAMBURGH.—A new variety, quite distinct; bunch large and shouldered; berries very large, round, black, with a very thick bloom, and having a hammered appearance; flesh firm, and nearly, if not quite, equal to the old Hamburg; in appearance handsome; hangs well, and suitable for forcing, cold, or late house.

WILMOT'S BLACK HAMBURGH. No. 16.—Another seedling disseminated by Mr. Wilmot; fully equal to the old, and perhaps with more spirit; bunch large shouldered; berries round and large.

ZINFINDAL.—A very handsome grape; bunch large and long, often with one, and sometimes two, shoulders on the same side, nearly as large as the main bunch; berries medium size, round and very black, with a thick bloom; flavor good; when first colored, quite acid; should remain on the vine several weeks after apparently ripe, or until the berries begin to shrivel. Suitable for a forcing or late house. It is probably a German grape. I cannot find any described answering to it.

It was first grown in this vicinity by S. G. Perkins, Esq., of Brookline, who received it from a gentleman in New York state; it very closely resembles a grape miscalled Frankendale, (also grown in this neighborhood,) but it is not the same, being more acid.

FRANKENDALE—alluded to above; resembles the Zinfindal in every particular except flavor, and this is quite sweet. It is proper to mention, here, that the two are thought synonymous by many; this last I have not grown myself, but have carefully examined it in other houses, and only name it here as connected with the Zinfindal; as it is desirable the true name of each should be found, and this may be the means of calling attention to them.

BLACK PORTUGAL.—A strong-growing grape, of fair quality; bunch very large, shouldered, and compact; berries set well; requires severe thinning, oval and very black, with a thick bloom; should hang some weeks after coloring, before eating. Suitable for forcing cold or late house.

EARLY BLACK JULY.—The earliest grape; bunch small and

compact ; berries small, and covered with a rich bloom ; when first colored, very acid, but will, by hanging, become very pleasant-flavored. Too small to be desirable in the forcing house.

MILLER'S BURGUNDY.—Very like the early Black July, but easily distinguished by the foliage of this being covered with a white down. Not worth a place in the house.

ESPERIONE.—Bunch very large and shouldered ; berries black, round, medium size, with a thick bloom ; flavor sweet ; does not hang well ; the berries soon shrivel and become dry and poor.

HANSTERETTO, or HANSTETTO.—Bunch large ; berries large, black, and oval ; does not set well.

BLACK PRINCE.—A fine, spirited grape ; bunch long and shouldered ; berries oval, black, with a thick bloom ; medium size ; sometimes cracks ; hangs long. Suitable for forcing, cold, or late house.

BLACK ST. PETER'S.—Very like the Black Prince ; hangs long.

BLACK PROLIFIC.—A good grape ; bunch very large and shouldered ; berries black, round, with a rich bloom, very like the Black Hamburgh ; hangs well. Suitable for forcing, cold or late house.

WORTLEY HALL SEEDLING.—The latest grape, and a very good one ; bunch medium size ; berries large, long and oval ; black and covered with a thick bloom ; hangs well ; cracks some. Suitable for a late house only.

BLACK TRIPOLI.—A good sweet grape, resembles the Black Hamburgh ; berries more elongated.

RED TRAMINER.—A rich grape ; bunch large and shouldered ; berries medium size, round and red colored ; hangs well. Suitable for forcing or cold house.

ALEPPO.—A good grape ; bunch large and shouldered ; berries medium size and round ; the color, when first formed, red, changing to almost white at maturity. Suitable for forcing, cold or late house.

ROSE OR RED CHASSELAS, a handsome grape, of good quality ; bunch rather small ; berries medium size, and of a red or rose color ; hangs well. Suitable for all houses.

WHITE FRONTIGNAN.—One of the best Muscat grapes ; bunch

medium size, rarely, but sometimes shouldered; ripens about ten days after the *Hamburg*, and requires a dry situation; in a wet soil it will shrivel or shank and will not be worth cultivation. Berries large and round, and when well ripened, of a beautiful amber color; does not hang so well as many kinds. Suitable for forcing cold or late house.

GRIZZLY FRONTIGNAN.—Another fine *Muscat* grape; bunch not very large, slightly shouldered; color reddish gray, with a thick bloom; ripens before the *Black Hamburg* and other *Frontignans*; hangs well. Suitable for forcing cold or late house.

BLACK FRONTIGNAN.—Same flavor as the other *Muscats*: bunch long; berries black and round; requires the same situation as the white. Suitable for all houses.

TOTTENHAM PARK MUSCAT.—A seedling from the *Muscat* of *Alexandria*, which it resembles. Bunch large and shouldered; berries oval, amber colored; flavor, *muscat*, but the two years I have grown it, it has not been so rich as its parent; sets well, and hangs well. Suitable for forcing and late house.

CHARLSWORTH TOKAY.—A very fine grape of *muscat* flavor; hangs long. Suitable for forcing or late house.

WHITE MUSCAT OF ALEXANDRIA.—Bunch very large, and shouldered; does not set well; one of the richest *muscat* grapes; berries large, oval, and of an amber color; hangs long. Suitable for forcing and late house.

CHASSELAS DE BAR SUR AUBE.—A very fine white grape; bunch large and long, often ten to twelve inches, usually without shoulders; very like the *White Chasselas* in flavor, but to be preferred for planting; a great bearer and sets well; berries medium size, round, and when fully ripe amber color; ripens before the common *Chasselas*. Suitable for forcing or a cold house.

MUSCADINE OR EARLY WHITE.—Closely resembles the *Bar Sur Aube*, but, with me, ripens ten to fifteen days earlier. Good for forcing.

GOLDEN CHASSELAS.—A fine grape; bunch long, sometimes shouldered; berries, large, round, and of a golden color; some seasons cracking badly; does not hang well for this reason. Suitable for forcing and cold house.

WHITE GASCOIGNE.—A fine white grape; bunch large and compact, with shoulders; berries inclining to oval, cracks, and does not hang well. Suitable for forcing or cold house.

PITMASTON WHITE CLUSTER.—Bunch small, compact and shouldered; berries small, rich, and amber colored. Suitable for forcing or a cold house.

VERDELHO.—The Madeira wine grape; bunch, medium size and shouldered; berries small and oval, and amber colored; flavor rich; hangs well.

WHITE NICE.—Bunch very large; berries small and round; rich flavored.

SYRIAN.—Bunch very large and shouldered; berries oval; flesh firm, and, if allowed to hang until of an amber color, very fine flavored; hangs well. Suitable for forcing or late house.

Salem, December, 1846.

It is scarcely necessary for us to make a remark upon the above most excellent and invaluable article to every grape cultivator; for Mr. Allen is every where well known as one of our most zealous amateur grape-growers, devoting nearly all his leisure time to this choice fruit alone. His houses are of great extent, and grapes are cut nearly the year round—commencing with the forced ones, in April, and ending with those from the late house, in January. Mr. Allen has upwards of sixty varieties of grapes planted out, but he has only given us the results of his own experience in regard to such as have fruited, leaving the others to be noticed hereafter, when their qualities can be compared and tested in the same manner as those now enumerated. In connection with Mr. Russell's, and other articles we have given heretofore, it affords all the information any cultivator need require to produce grapes in the greatest abundance and perfection.—*Ed.*

HORTICULTURAL MEMORANDA

FOR JANUARY.

FRUIT DEPARTMENT.

Grape Vines in greenhouses and graperies will be at rest, and will require no particular care till next month. Vines in hot houses will now begin to

show their buds, and will require much attention at this early season. Vines in pots may now be brought into the greenhouse, where they will push their buds early, and ripen a good crop of fruit, if properly managed.

Peach Trees in pots may now be brought into the greenhouse or vinery.

Figs in pots may be also forced in the same way.

Scions of fruit trees may be cut now, and placed away for use in spring. Insert the lower ends in a box of earth.

FLOWER DEPARTMENT.

Camellias will now be the most brilliant ornaments of the greenhouse, and will continue so until the roses begin to open their blossoms. But to enjoy a good collection of this splendid flower, it is necessary that the plants should be in the most healthy and flourishing condition. They should be well shaped, the foliage deep green, glossy and rich, and the decaying flowers should also be gathered every morning. An occasional syringing should be given on fine days, with *perfectly* clean water, and with a good supply of moisture at the roots they will continue to flourish and give an abundance of flowers. Attend to the impregnation of the flowers if seeds are wanted.

Japan Lilies should now be carefully repotted, injuring none of the fleshy roots; the offsets should be carefully taken off and placed in small pots. The best soil is peat and leaf mould, with a very small quantity of loam and sand. Place in a cool shady situation till the tops appear above the soil.

Dahlias for very early flowering should be potted this month.

Roses will now be coming forward rapidly, and will need attention. Syringe freely, and keep the earth sufficiently moist without being too wet. Fumigate as often as the green fly appears; and water every 10 or 15 days with weak *guano*. Repot young plants rooted in August.

Pelargoniums will now be acquiring strength to push their new growth, as soon as they are repotted the last part of the month. Keep them rather dry, and as near the light as possible.

Gloxinias, *Gesneras* and *Achimenes* may be potted now, and placed in the warmest part of the house, when they will come forward early.

Azaleas may now begin to have rather more liberal supplies of water.

Cactuses should now be rather sparingly watered.

Fuchsias intended for raising young plants should now be placed in a warm situation, in order to induce them to make shoots for cuttings. Old plants do well headed quite down to the ground; they then throw up a strong straight shoot.

Pansy seed may now be sown to supply young plants for early planting in the borders.

Nemophilas should now have another shift into the next size pots.

Heaths will require attention; if the pots are full of roots, let the plants be shifted at once; water carefully, and syringe occasionally over the tops.

Verbenas should be repotted now.

THE MAGAZINE OF HORTICULTURE.

FEBRUARY, 1847.

ORIGINAL COMMUNICATIONS.

ART. I. *Root Grafting the Peach Tree and Rose ; Grafting the Pear upon the Apple ; the Apricot on the Peach ; new Mode of Raising Cucumbers, &c.* By M. W. PHILLIPS, Esq., Log Hall, Edwards, Miss.

I HAVE neglected a reasonable duty longer than I should, but my various duties have so completely taken up my time at home, that I have postponed.

In comparison with trees grown in this latitude, your trees are far behind in size, though equal in the bright and healthy appearance of the bark and twigs. I can assuredly show maiden pear trees, double and treble the size of yours, and peach trees that are full twelve feet high, and two to three inches in diameter. I do not wish to be understood as overrating my country, but as giving the facts, that I know I can show any day. I can show fifty varieties of pear, *maiden trees*, that will average ten feet high, with size and branches to correspond. I have lost of pears nearly all that have been here long enough to bear, whilst some, here since 1832, have size, health and vigor, but never yet fruited.

Have you ever tried grafting peach trees? Have you any knowledge of root grafting of the peach? I can show a few grafted peach trees that are decidedly the prettiest trees I have, not so tall, nor inclined to make long branches, but more bushy. I desired some varieties, that were too remote to get buds, and where I could get no one to work me a tree as a specimen, as a dernier resort, I concluded to try grafting, and though the trees were in bloom, the 'grafts with leaves and bloom, I grafted, and have specimens about seven feet high,

grafted between the 6th and 9th of March, near one month too late for this climate, but I could not get the grafts in time. I was induced to try it, having been told by a youth that his father succeeded well in grafting the peach, by using the terminal ends of branches, and whip grafting. I did not graft thus, but pared the graft as for whip grafting, and then split the bark of the stock, and inserted the graft.

Root grafting the peach will be regarded, in this country, as something new; with your experienced countrymen it may not, but it has advantages over all other modes. I received the hint from a friend near Mississippi city, who informed me that a neighbor of his, who was a very expert budder, and who budded for any that required, would not work his own trees, and gave, as his reason, that he intended to root graft, that it was more certain, and made handsomer trees. Previous to this, I was shown a lot of trees that were root grafted in Hatch's nursery, but the information was vague; since that time, the gardener who worked the trees has returned, and says *they were* worked on refuse roots, that were left after removing trees, and that he uses any part of the branches, just as in any other grafting, and that he gave the hint to a gentleman who was either living, or was moving below, but is not certain that the above gentleman is the one. Mr. Patrick O'Connor, gardener at Hatch's nursery, has assuredly very successfully root grafted the peach, and they are five to eight or ten feet high — maiden trees.

He also root grafts the rose, and upon removal, the junction is complete, and the wound will not be observable in another twelve months. These trees and roses are, if any thing, larger than I desire to remove. The advantages are, that, in the month of February, when but little out-door work can be advantageously done, the peach can be grafted; the trees will be saleable in November to any one, whereas my budded trees of, say 10th of June, are not large enough to please one in fifty, yet they are, in some instances, as large as those you sent me; and there is not such necessity for peach pits, and so long culture. So far as I know, or can learn, Mr. O'Connor deserves the credit, for he has actually the trees to show.

As to grafting the pear on the apple stock, I recommend it to nurserymen, who desire wood, on the same principle as

for budding the rose; the growth the first year is truly astonishing, though probably on the same size pear stock, it would be as great. My reason for inquiring — page 430, November number — about this kind of grafting was, a friend sent me eight different pears grafted on apple stocks. I had expressed to him an unfavorable opinion of the plan, he boasted of the size, and would prove to me I was wrong. Before August, four of the eight were dead, and the residue not promising, except two, Meadow and Butter. Upon noticing his own trees, I find the ends of branches have decayed, and that the trees seen by me are unhealthy.

I have seen many apricots worked on the peach, and I can see no objection to it, our peach trees not being, in this particular region, so liable to decay as with you. I would recommend grafting in the earth, so that the apricot could be under the earth. We have no other stock here that will suit, our Chickasaw plum stock not being large enough, and is too slow in growth: our native plum, though large enough, is too slow. What do you work apricot and plums on? The plum will not live on the peach, — so says an intimate friend, zealous in the cause, but young in it. I have never tried.

When giving you my experiment with soot and saltpetre for cucumbers and melons, I ought to have included purple egg plant; for this last it seems a soak, that is well adapted to pushing vegetation forward, as well as keeping off a fly, or flea, that destroys them. I could not succeed to get a plant, save under glass, until I tried this steep. I have, from time to time, tried ashes, soot, salt, lime, dry dust, smoking the plants in the morn, with tobacco smoke from my cigar, but they were not effectual. At length, in 1844, I tried the steep first on the egg squash, and noticing some change, I tried it immediately on cucumbers and from that time, I declare to you, I have not seen a striped bug around my plants.

I differ from any person, except a lady now in Virginia, in the mode of planting cucumbers. I make a rich, light, deep tilled bed, about ten by sixteen or eighteen feet; I then mark off rows north and south, two feet apart, and draw up into ridges, as high as can be, with a hoe. I then rake down the ridge, so as thoroughly to pulverize the top, and plant my steeped seeds some two inches apart; cover lightly and press

the earth with a plank. When the bud has formed, between the seminal leaves, I pluck up the weak plants, leaving a stand about a foot apart. My cultivation is then to hill up once, so as to support the stem erect, and keep clean. From a bed of this size, I have fed my family of about twenty-five, and have gathered, myself, a bushel at a time for hogs, that were not yellow. I think the fruit sets earlier, and that the earth, being well shaded, they last longer. How it will do in your climate I know not, but my teacher — the lady alluded to — says, in Virginia, it is decidedly the best plan. In consequence of my success in this, pursuing it since 1838, I have put my melons six feet by about four, my former distance being eight feet square.

“My peach orchard numbers over one” thousand, instead of “one hundred ;” these, with six hundred apples and three hundred and fifty pears, will not admit of wrapping with paper and then tarring. I must have something more readily applied. I will rely on whitewash with cowdung, for even milk and soot would be too costly where one feeds his cows entirely from his house, as I do, through choice, instead of being uncertain, the cows not coming up.

I use, in my nursery, narrow strips of the pasteboard from sperm candle boxes, hung on lower limbs. This frightens off the rabbit.

I know the pear will succeed in this latitude, and do not think Boston, or the northernmost limit in which they will grow, can excel us. The only difficulty is winter pears. My object is, not to prove this fact, but to prove which are the best varieties. I am greatly pleased that you approve this step of mine, for I really feel that I will do immense service to my country, and of course secondarily aid all nurserymen. I am a cotton planter, rely only on that business for a living, and ought to be considered a disinterested witness. But the fruits will be here, side by side, to show for themselves.

I am influenced by a desire to induce men and women and children, to love home, be industrious and temperate. If they could enjoy fruits and flowers in abundance at home, they would, it seems to me, become attached to the trees and plants ; they would be at home all the time, and would inadvertently work among them ; ennui, the ruin of this country, could

never be ; and, having fine fruits to hand to visitors and to eat without stint, dram-drinking would become a thing of yesterday. This is my first desire, and in truth my exertions have been to this end, from the beginning. If there was less desire to accumulate wealth, and more taste for the beautiful, I have no doubt but what morals, education and religion, too, would be advanced. I have acted under this belief, and I hope to taste the fruits thereof ere I am borne hence. My motives have been impugned ; but I expected it, and only for a moment have I faltered,—and who can bear to have his nearest friends call one a theoretical book-farmer, a humbug, and all that sort of croaking slang ? That I have been often wrong, is to be expected, but I have tried to be right.

Have you ever budded the apple on the pear ? A gentleman of great zeal in aboriculture, and of unquestioned truth, assures me he has had the apple to fruit, two years from the bud, when put on the pear.

We have much to learn yet, and I fancy amateurs must do much of the teaching, because regular nurserymen and gardeners have their hands full, without trying experiments. I have myself no fondness for extra natural things, and have never tried any, in that way. I have worked pear on apple, but upon the strong recommendation of a friend ; I do work apricot on the peach, but I cannot get a better stock ; and if worked, so as to cover the wound in the earth, I really see, by practice, no kind of objection. I will continue until I can get a thrifty stock. I am planting a number of apricot seed ; if I succeed well with them, I will adopt this as a stock. I do not think there will be much more, if any, time required. I can produce apricots from the bud, at least eight to ten feet, and why should a seedling not do this ?

You must only notice my rambling remarks, for I have but little time to write for a magazine of merit.

Log Hall, Edwards, Miss., Dec. 14, 1846.

The communication of our correspondent contains many good hints and suggestions, which the practical man, as well as the amateur, will find worthy of attention.

The growth which trees make in the south-western States is certainly remarkable ; but is such a rapid growth desira-

ble? Does it not tend to produce blight? And can the wood be so well matured as when the growth is slower? These are subjects worthy of consideration by the orchardist.

Such trees as our correspondent states he has had since 1832, without coming into fruit, we should deem fit subjects for root-pruning; this, we are sure, will speedily induce them to bear. It at once checks the growth, and causes the formation of fruit spurs. We have tried this ourselves, and seen it fully and successfully tried by others. It may be done the coming spring.

We have root grafted the pear, apple and plum, but never the peach, as we could not see that any thing could be gained by the operation, for the seedlings are always of sufficient size to bud the first year, and there is far more leisure in the months of August and September to do this, than to graft in the spring. We do not doubt but that the operation of root grafting may be as well done on the peach as with the plum; and of the latter we have had fine trees; as to the graft making a much handsomer tree, we think this must be an error. No better trees can be produced than those we have raised from buds, being clothed with branches to the ground, — far more numerous than should be allowed to remain when the trees are removed where they are to stand. Where peach stones are difficult to procure, root grafting may be very desirable, as roots from old trees can be had for the purpose.

Root grafting the rose is very extensively practised with us, and of the very rare kinds we raise hundreds in this manner. So successful is the operation, that, from scions cut from trees imported from France in October, we have had plants a foot high in May, and ready for planting out into the border, and, of perpetuals, in full bloom in nine months.

The apricot will do very well upon the peach, and where the peach borer is not troublesome, it will answer every purpose. But in this region the borer commits such ravages that the plum stock is far the best; besides, the plum checks the rapid growth of the tree, and consequently the wood is better ripened and able to resist severe winters. We work our apricots upon the muscle plum, which is a free grower. The Chickasaw and Canada plum are both unfit, though we know many nurserymen who use them altogether. We have sev-

eral trees, procured of various nurserymen, in our collection, on the Canada plum, and, in a late gale, a large tree was broken off at the junction of the graft, from the overgrowth of the scion. We would recommend the muscle plum to our correspondent, as the very best stock for the apricot.

We have never budded the apple on the pear. Though the apple will undoubtedly grow, it is doubtful whether such a union will be of any utility. Perhaps, to test a new variety as soon as possible, it may be advantageous; but we need experiments to show whether trees will continue to produce fine fruit after they once begin to bear. We shall be happy to learn the results of any experiments of this kind, which our correspondent or his friends may be induced to try.—*Ed.*

ART. II. *Results of the Cultivation of the Pear and other Fruit in the Southern States.* By R. CHISHOLM, Esq., Corresponding Secretary of the Beaufort Agricultural Society.

I PROMISED you, last summer twelve months, to communicate my experience in fruit, but the past summer has been so very unfavorable that I have had very little fruit, nearly all having rotted on the trees. Of peaches, nectarines, and plums, I did not get one single good fruit, though my trees were loaded, except from a tree of the Bolmar Washington plum, which bore about fifteen or eighteen, which all came to perfection, the largest being fully six and a half inches in circumference. My apples were generally wormy and rotted before ripening. My pears did rather better, though they too rotted very badly. The Epargne bore well, and, from one or two fruit picked at the right time, I should call it a good, juicy, and sweet fruit; but I allowed most of the fruit to remain on the tree until over-ripe, when they were mealy and flavorless. The Epine d'Été, or summer thorn, bore well also, and the fruit was larger than the year before, and probably better, but I thought it only fully second quality. The Grey Butter, St. Germain, Winter Bon Chrétien, Crassane, and Verte Longue Panaché bore well, and their fruits were about equal, though very different,

and I consider them of the first quality. The Echasserie, I should also pronounce first quality, though it bore only a few imperfect fruit. The *true* Virgouleuse bore a quantity of fruit, but they all were cracked, knotty and utterly uneatable, which is, I believe, the great objection to it, as the fruit is fine when in perfection. The White Butter was knotty as usual with me, and consequently just eatable. The best pear I ate during the season was one of the size and shape of the summer Thorn, but without any color on the cheek, and ripening about one month later, the name of which I do not know, though I am under the impression, from no good reason, that I received it as the *Doyenné de la Motte*, but I hope to be able to test this point the next summer, as I hope that the tree I have under that name will bear fruit if I can get rid of the bark lice that infest it. Even my orange trees, which bore about 10,000 or 12,000 a year ago, have this season borne only about 200 oranges. My oranges, by the by, were pronounced the last year, by all who tasted them, as the best they had ever tasted, except by one gentleman, who thought that those he had eaten from the tree in Cuba were superior.

The cultivation of fruit, especially of peaches and pears, is extending rapidly hereabouts. Of the apples, plums, and cherries, we are doubtful of success, though some of us are trying them.—I mean to graft and bud my apples mainly upon our native crab, which I find on the plantation, and the others upon native or acclimated stocks. I think that when we are fairly under way, the north will get its best peaches and late pears from the south, and the south its best apples, plums, and early pears from the north, at least so says my theory on the subject; Q. E. D. as you will probably say—I am sowing the seed of pears to try.

My small olive trees were loaded with fruit this year for the first time; but, just before the fruit was ripe, it was all blown down by the gale of the 10th and 11th of October. I have several hundred trees just coming into bearing.

If you raise figs in your houses, why do you not try the Celestial, one of the smallest, but a good bearer, and the best fig known here and to the south, and also the Alicante, a very large, very productive, ever-bearing, and fine blue fig? These are our two best figs. Wishing you many

able contributors, and many punctual subscribers, I remain yours.

Near Beaufort, S. C., Dec. 21, 1846.

Will our correspondent be so kind as to forward us, at a convenient opportunity, a tree of each of the figs he so highly recommends? We are now importing some new sorts from Europe with the hope of making a collection of the best; and would be glad to have the Celestial and Alicante to compare with the European sorts, and note their relative merits. The fine pear alluded to of the shape of the summer Thorn may be the St. Ghislain, which resembles that variety in form. Bark lice may be easily destroyed by washing with oil soap about the consistence of common paint.—*Ed.*

ART. III. *Observations on Root Pruning.* By A. H. ERNST.
Cincinnati.

PERMIT me to make a few remarks, through your Magazine, on root pruning as adapted to the culture of trees. This, although a popular measure with some writers and cultivators, I cannot but view as a sort of horticultural heresy, calculated to produce much mischief. This practice will have its day, and then be permitted to slumber among the errors of the times.

The principle of *life*, growth, and durability of trees, is not unlike that of the animal. To secure these ends to the fullest extent, both must be supplied with good and healthy nourishment, suited to their condition, and just in proportion to the number, capacity and healthy action of the receiving or absorbing vessels, will the plant or animal be benefited by it: if these are obstructed or crippled, it is clear the plant or animal must suffer just in proportion to such obstruction, however ample or appropriate the food within their reach. The extreme ends and the laterals of the roots are furnished with what are termed *spongiolæ*; these answer to the plant as the *lacteals* of the *stomach* do to the animal, in absorbing from the digested or prepared substance, in the one from the stomach,

conveying it to the lungs, where it is changed into blood, and is thus prepared to add to the life and growth of the animal: the other from the earth, conveying it through the sap-vessels to the leaves, which are the lungs of the plants: from these it is returned in a suitable condition to add to the growth of the plant. The leaves of a tree are just as essential to its growth and health, as its roots and food, and will as certainly suffer from a want of a sufficient supply as the animal whose lungs are impaired. Trees too, like animals, require and do periodically rest: the tree, being deprived, during this time of rest, of its leaves, ceases to grow, although its functions are only in part suspended: if, during this time of rest, the roots are deprived of moisture any considerable length of time, the tree will die. All this goes to show how essential and important the leaves are to the growth of the tree, and the roots to the supply of the nourishment from the earth for their ability to perform their office. Any culture, then, that has a tendency to prevent the forming of the largest supply of leaves, is a fatal error. This is the effect of root pruning. It is evident, if the spongioles of the roots are cut off or mangled, the plant must suffer just as the animal would, if deprived of the lacteals of the stomach, and is thus deprived from the forming new wood and leaves, until new spongioles can be formed. As often, then, as this is repeated, the plant will lessen in strength until its *life* is exhausted by this unnatural process.

That the system of root pruning may be successfully applied to stunting and dwarfing trees, and forcing them into fruiting, is an admitted fact, and where the durability of the tree is no object, but a show of fruit of more importance, no better expedient can be resorted to, to effect the object, and where but limited room can be afforded, and a large variety of fruit is desirable, the advocates of this system may have sufficient cause for recommending it. But to those who have not yet been crowded into narrow limits, and deem the duration of their trees of any importance, I should advise against a resort to it by all means.

The practice of root pruning is very simple; nothing more is necessary than a sharp spade: with this, the roots are cut off by forcing it in the ground with the foot, across the roots, a greater or less distance from the body of the tree, accord-

ing to its size. The effect is to check the tree in its growth, and to force it to expend all its remaining energies in forming embryo blossom buds and fruit. This it will continue to do until its vital energies are exhausted and life is extinguished, the duration of which will depend very much on the vigorous application of this destructive system.

The above remarks are offered in the hope that some one more capable may be induced to take up the subject and show its mischievous effects.

Spring Garden, near Cincinnati, December 21, 1846.

ART. IV. *Descriptions and Engravings of Select Varieties of Pears.* By the EDITOR.

In our past volumes, we have given our descriptions and engravings of new pears under the head of *Pomological Notices*. But, as our information under that head is intended only to contain brief notices of new or choice fruits, previous to a full description of them when better known, we have thought it desirable to give our future descriptions of pears under a distinct head.

We have the drawings of many fine varieties, which we shall endeavor to present in this volume, and, among them, some new and superior kinds, particularly of native origin : among these will be the Onondaga, which we have already noticed, and which we should have presented a description and engraving of before, but for the hope of obtaining a full and correct account of its origin.

The following six varieties are entirely new, and have never yet been figured, part of them having been received from Van Mons without names ; but brief notices of some of them will be found in the communications of the late Mr. Manning in a previous volume (VIII. p. 56.) Subsequent experience has confirmed the good opinion which he then expressed of their merits, and they may be enumerated among the best varieties which have been recently added to our collections.

61. VAN ASSENE.

This very excellent pear, (*fig. 4,*) was received from Dr. Van Mons among the first lot of scions which he sent to Messrs.

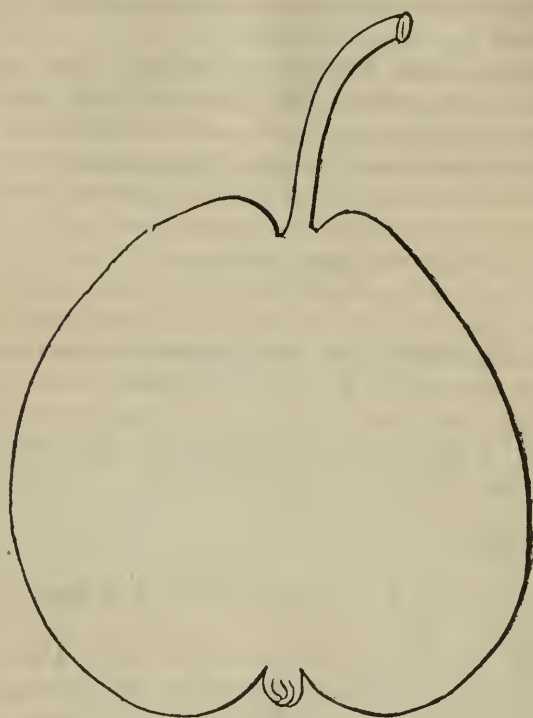


Fig. 4. Van Assene.

Manning and Kenrick, in the spring of 1835. In the second parcel, which came to hand in 1836, many varieties were duplicated; but this name does not appear in that list. We do not find the name in the catalogues of the most extensive French and Belgian nurserymen, and we hence conclude that it is unknown to continental pomologists, and probably only exists in American collections. Mr. Manning first fruited it in 1841, and briefly described it as above referred to, where he calls it a "very tender, fine, and melting pear." Subsequently, we believe, it has been exhibited from Mr. Manning's collection, but we have not had an opportunity to taste it

until the past year, when we received a fine specimen from the Hon. J. S. Cabot. It was one of three or four which he exhibited at the Annual Exhibition of the Massachusetts Horticultural Society, and it must be ranked as a very superior fruit. Wood vigorous, of a reddish chestnut color, with round plump buds.

Size, large, about three inches long, and three inches in diameter: *Form*, obovate, slightly angular, large and full at the crown, and tapering to the stem, where it is obtuse: *Skin*, fair, smooth, dull citron yellow, with several grayish black blotches on the shaded side, and regularly covered with rather large russet specks: *Stem*, long, about one and a quarter inches, slender, smooth, pale brown, curved, and inserted in a small, moderately deep cavity, with slight projections on one side: *Eye*, medium size, closed, and considerably sunk in a rather large, round, open basin; segments of the calyx medium length, narrow: *Flesh*, white, rather coarse, buttery, melting, and very juicy: *Flavor*, rich, sugary, slightly perfumed and delicious: *Core*, large: *Seeds*, large, very broad, deep brown. Ripe in September.

62. HENKEL.

This is another of the productions of Van Mons, scions of which were received with the Van Assene and others in 1835. It was also sent again among those received in 1836. When it first fruited, we are not informed, but the variety first attracted our attention at the last Annual Exhibition of the Massachusetts Horticultural Society, when some very good specimens were shown from the Pomological Garden. It probably had not fruited in 1842, when Mr. Manning described all the new kinds which had come into bearing in his extensive collection. The name does not appear in French catalogues, but is enumerated in those of the Belgians. The Henkel (*fig. 5*) is a rich, sprightly and excellent fruit. Mr. Manning, in a note to us, in regard to this and other sorts, states that the young shoots are stout, and of a grayish brown color; petioles long; leaf folded and curled like that of the Easter Beurré, but larger and thicker. This pear is remarkable for

two bud-like prominences on opposite sides, and near the middle of its long stem. The same thing may also be noticed on the Wilkinson.

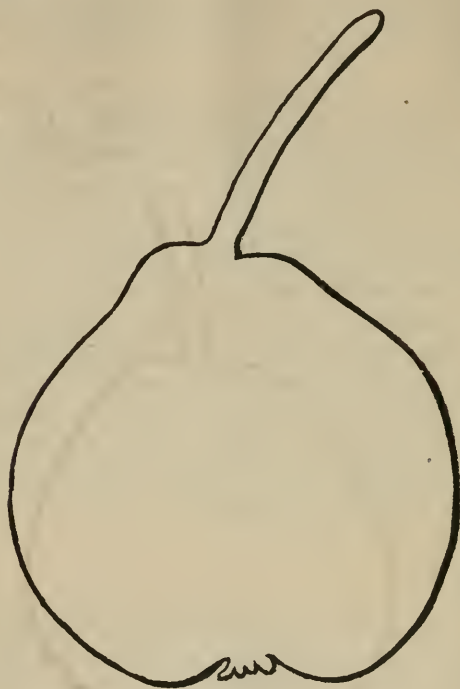


Fig. 5. Henkel.

Size, large, about two and a half inches long, and two and a half in diameter. *Form*, obovate, slightly irregular on the surface, large in the middle, and obtuse at the stem: *Skin*, rather rough, lemon yellow, more or less covered with patches of cinnamon russet, and interspersed with dull green specks: *Stem*, very long, nearly two inches, moderately stout, curved, light brown, and slightly inserted in a small, contracted cavity: *Eye*, medium size, open, slightly sunk in a very shallow uneven basin: segments of the calyx short and round: *Flesh*, yellowish white, rather coarse, melting and juicy: *Flavor*, sprightly, vinous, perfumed and excellent: *Core*, medium size: *Seeds*, large, broad, and deep brown. Ripe in September.

63. ELIZABETH (VAN MONS.)

158 Van Mons's numbered Varieties.

The list of good summer pears is rather limited, and the additions to this class are few compared with autumn varieties. Every new kind, therefore, of decided merit, ripening at this season, is welcomed as a desirable fruit. The Elizabeth of Van Mons (*fig. 6.*) is one of this description. It is not of

*Fig. 6. Elizabeth, (Van Mons.)*

large size, but it has a great deal of beauty; and, without being very high flavored, it has that mingling of sweetness and perfume which will render it a favorite with most cultivators. Mr. Manning describes it as "very sweet." It was received from Van Mons, as No. 158; but as he gave Mr. Manning permission to name any of the numbered kinds when they came into bearing, it received from him the name under which he has already briefly described it, (VIII. p. 57.) In the fall of 1842, the last time we had the pleasure of a conversation with Mr. Manning, at his residence in Salem, he gave us some specimens of the Elizabeth, from which we made a drawing, but they were rather small, and we thought it best to

await the opportunity of procuring better ones: the past year, we received a fine fruit from the collection of the Messrs. Putnam of Salem, from which our engraving is made. Mr. Manning, in answer to our inquiries, in relation to the introduction of this pear, and its qualities, writes as follows:—"The Elizabeth was received from Van Mons, as No 158, but I cannot ascertain exactly when. A pear, received in 1834, with this number, proved to be the Marie Louise, and I am inclined to think that the variety which now bears the name was not received earlier than 1838. I know of no more productive variety. When the fruit has attained about half its size, the blossom end—about half the pear—is, in a majority of specimens, covered with a thick russet, suddenly terminating in a distinct line around the pear, some traces of which are often visible when the fruit is mature. Young shoots reddish brown."

Size, small, about two inches long and two in diameter : *Form*, obovate, very full around the eye, tapering to, and ending obtusely at, the stem : *Skin*, fair, lemon yellow, very brilliantly suffused with red on the sunny side, through which appear deeper-colored specks, becoming paler in the shade, often with traces of russet : *Stem*, medium length, about three quarters of an inch, rather slender, smooth, olive brown, and slightly inserted in a shallow cavity : *Eye*, small, open, little sunk in an open, shallow basin ; segments of the calyx short : *Flesh*, yellowish, coarse, melting and juicy : *Flavor*, saccharine, rich and pleasantly perfumed : *Core*, large : *Seeds*, rather large, brown. Ripe the latter part of August.

64. COTER.

The Coter pear, (*fig. 7*.) was one of the varieties received from Van Mons in 1834, and is enumerated in the list which was published at that time as the "Coter peer." The younger Mr. Manning has enumerated it among the fine new kinds which have recently fruited in his collection, and has briefly described it in our last volume, (XII. p. 149.) The past autumn, he kindly forwarded us several specimens of this and other pears, from which our drawing was made, and he has recently given us the following additional information respecting

it:—"The tree is of moderate growth, making a round, compact head, and is a good bearer. Young shoots reddish olive, thickly sprinkled with light dots. Although I have, in your last volume, p. 149, stated the time of its maturity to be October, they were not ripe, the last season, until from the middle to the last of November, when I thought it the best pear then ripe."

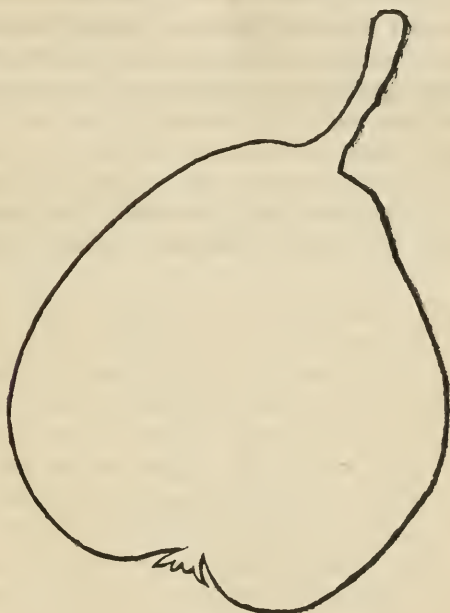


Fig. 7. Coter.

To those who are fond of such brisk and vinous pears as the Beurré d'Arenberg, the Coter will not be so highly esteemed; but to those who like such as the Winter Nelis, it will be considered nearly or quite equal to that variety. The name does not appear in European Catalogues, and it is probable that it is only to be found in American collections. Our specimens were not ripe till the end of December, coming in after the Beurré Diel, and proving to be a most valuable winter pear.

Size, medium, about three inches long, and two and a half in diameter: *Form*, obovate, nearly regular, tapering to an obtuse point at the stem: *Skin*, light yellowish green, some-

what clouded with grayish patches, and considerably russeted around the stem: *Stem*, medium length, about three quarters of an inch, rather stout, nearly straight, fleshy and swollen, and obliquely set upon an obtuse point: *Eye*, rather large, open, and moderately sunk in an open, round basin; segments of the calyx medium length, broad, pointed, and reflexed: *Flesh*, white, rather coarse, buttery, melting and juicy: *Flavor*, sugary, rich and delicious, with a slight perfume: *Core*, medium size: *Seeds*, medium size, rather broad and flat, dark brown. Ripe in December, and keeps a few weeks.

65. *DOYENNE' D'ETE. Theorie Van Mons.*

The Doyenné d'Eté, (*fig. 8.*) though for some time known in France, in the vicinity of Nantes, where M. Poiteau, the

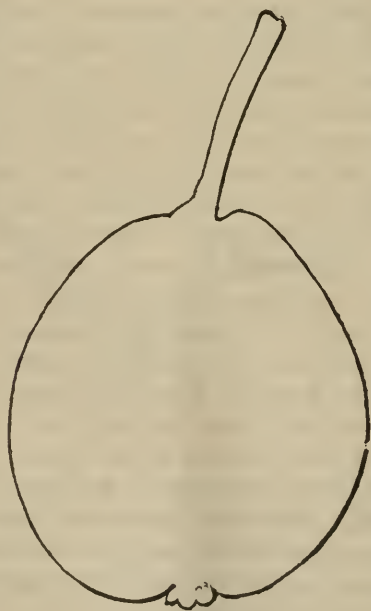


Fig. 8. Doyenné d'Eté.

author of the *Théorie Van Mons*, states it has been considerably cultivated, is entirely new to American collections. We believe it fruited, for the first time here, in our collection in

1845, when a small tree produced six or eight pears : last year, it bore upwards of a dozen, larger and finer than those of the year previous. Around Nantes, it is esteemed the best pear of the season, and, in comparison with the Citron des Carmes, we think it not only full as good, but a far more beautiful fruit, having a rich yellow skin, brilliantly shaded and spotted with crimson. It is about the same size as the Citron des Carmes, and the tree has the merit of bearing very young : it also thrives well upon the quince.

Mr. Kenrick, to whom all Pomologists are greatly indebted for the early communication of the lists containing the names and numbers of the new pears forwarded by Van Mons, and to whom the public are under great obligations for his labors in the introduction of new fruits, was the first to make this pear known to American cultivators, by his correct translation of M. Poiteau's description in the *Hort. Reg.* in 1836. But it does not seem to have been introduced for some time afterwards. We received it from Vilmorin of Paris, with many other new kinds, in the spring of 1843. The tree is quite unlike the Doyenné, having dull, brownish red wood, making moderately vigorous shoots, and having long, oval, pointed, dark green leaves. The fruit, like all summer pears, should be picked early, even before they have acquired any tint of yellow. They will then ripen off, and possess a flesh as melting as a white Doyenné. M. Jamin, in his *Catalogue*, sets it down as worthy of cultivation in the proportion of six to three of the Citron des Carmes.

Size, medium, about two inches long, and two inches in diameter : *Form*, roundish, turbinate, largest in the middle, gradually tapering to the stem, where it is obtuse : *Skin*, fair, smooth, pale yellowish green, becoming nearly yellow when mature, broadly shaded and marbled with brilliant red on the sunny side, and dotted with greenish russet specks : *Stem*, rather long, about one and a quarter inches, moderately stout, yellowish brown, slightly fleshy at the base, and obliquely inserted without any cavity under a slight projection : *Eye*, small, closed, inserted in a very shallow basin ; segments of the calyx short, stiff, projecting : *Flesh*, yellowish white, rather coarse, buttery, melting, and juicy : *Flavor*, rich, sugary, sprightly, perfumed, and delicious : *Core*, medium size : *Seeds*,

small, flattened, dark brown. Ripe the end of July and beginning of August.

66. DOYENNE' BOUSSOCK.

Doyenné Boussock Nouvelle. *Am. Orchardist.*

The Doyenné Boussock is another variety, which was first made known to our collections by Mr. Kenrick, who brought

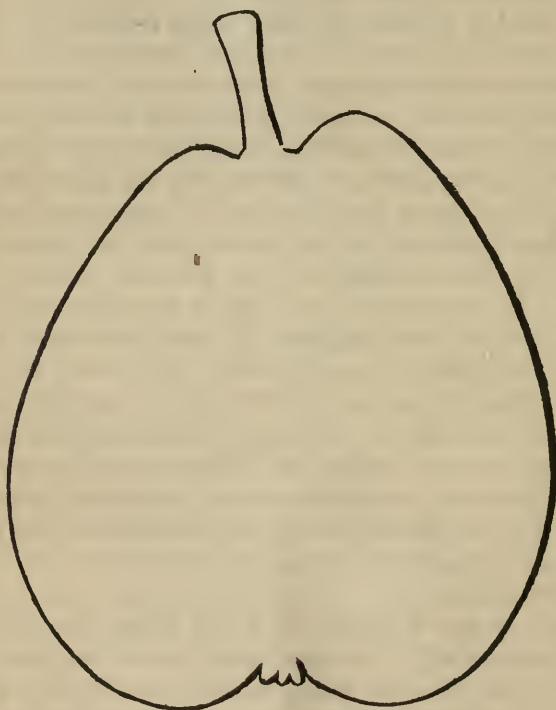


Fig. 9. Doyenné Boussock.

scions home with him in the spring of 1841, on his return from Europe; a portion of these he liberally gave to Mr. Manning, in whose collection it first fruited in 1843. Mr. Kenrick subsequently described it, in his *American Orchardist*, under the name of Doyenné Boussock Nouvelle, where he states he received it from M. Jamin of Paris: but, upon a careful inspection of M. Jamin's latest *Catalogue* for 1843, we only find

the Doyenné Boussock enumerated, and hence conclude that the word *Nouvelle* was appended by M. Jamin merely to designate it as a new variety. Our tree, which bore last year, and from the fruit of which our drawing (*fig.* 9) was made, was received from Paris in the spring of 1843, under the name of Doyenné Boussock. The variety which the late Mr. Manning described in our Vol VIII. p. 56, as this pear, proved to be the Doyenné gris.

We have previously noticed a tree which has proved to be this pear, (Vol. XII. p. 470,) which was purchased in Boston at an auction of a lot of French fruit trees, and bore for the first time last season : and we have remarked that it is somewhat singular that, among the many new sorts which have, for several years, been imported by our amateurs and nurserymen, the variety should be almost unknown, especially as it proves to be so fine a fruit. It is nearly as large as the Duchesse d'Angouleme, and is even superior to that variety, having a rich, brisk, and vinous flavor, somewhat like the Marie Louise. All we know of its origin is what is stated by Mr. Kenrick, viz.,—"new and large ; of superior excellence ; ripening at Paris in November, according to M. Jamin, of whom I received the fruit." (p. 143.) The wood is of a reddish brown, sprinkled with large, round, grayish specks, much resembling the white Doyenné in color, but it is nearly as vigorous as the Beurré Diel, having very prominent buds, and remarkable for its large and thick leaves of a bright glossy green : it is a good bearer, and must rank among the best varieties which have been introduced.

Size, large, about three and a half inches long, and three inches in diameter : *Form*, obtusely obovate, regular, large at the crown, and tapering little to the stem, where it is very obtuse : *Skin*, fair, lemon yellow, nearly covered with numerous tracings of bright russet on one side, and regularly dotted with large russet specks on the other : *Stem*, short, about half an inch, stout, straight, wrinkled, brown, fleshy at the base, and moderately inserted in a large shallow cavity : *Eye*, medium size, open, little sunk in a moderately deep, open basin ; segments of the calyx short, round : *Flesh*, yellowish white, rather coarse, melting and juicy : *Flavor*, rich, sprightly, vinous, perfumed and excellent : *Core*, medium size : *Seeds*,

small, very slender and long, almost black, mostly abortive. Ripe in October.

ART. V. *Descriptions and Engravings of Three New Apples.*

By the EDITOR.

HAVING, in our several volumes, described and figured upwards of *seventy* varieties of pears, embracing many of the newest and most choice kinds, we now intend to devote the same attention to that most valuable fruit, the apple. Having collected together more than two hundred of the best varieties, and upwards of one hundred *new* American seedlings, and planted out specimen trees, of which several will come into bearing the present year, we shall have the opportunity of describing them from specimens produced under our own eye, and shall be enabled to give all the particulars of growth, productiveness, &c. These, we trust, will prove as interesting and instructive to pomologists as our articles on the pear.

We now commence with the descriptions of three new and superior varieties, one of which has just been introduced to the notice of cultivators. The two first have already been briefly described in our pages, but we have not seen any description of the last. For the very fine specimens of the Red Canada and Northern Spy, we are again indebted to our friends in Western New York, Mr. Bissell of Rochester, who sent us the former, and J. H. Watts of the same city, who forwarded us a bushel of beautiful specimens of the latter. To Mr. Watts also, we are indebted for some account of the Northern Spy, which we have embodied in our description of that apple below. The varieties are as follows:—

I. TWENTY OUNCE. *Mag. of Hort.* Vol. X. p. 210.

Gov. Seward's,	}	Of some collections in New York.
Twenty Ounce pippin,		
Twenty Ounce apple,	}	Of Cayuga county, New York.
Cayuga Red Streak,		

The first knowledge we had of this apple was in the autumn of 1843, when some very fine specimens were presented

for exhibition, before the Massachusetts Horticultural Society, by George Howland, Esq., of New Bedford, who procured them from trees on his farm in Cayuga county, New York. From their great beauty, as well as excellence, the committee awarded Mr. Howland a premium, and requested a few scions for distribution among the members, which were duly forwarded for that object. In the spring of 1844, we were fortunate in procuring a small tree of this variety, together

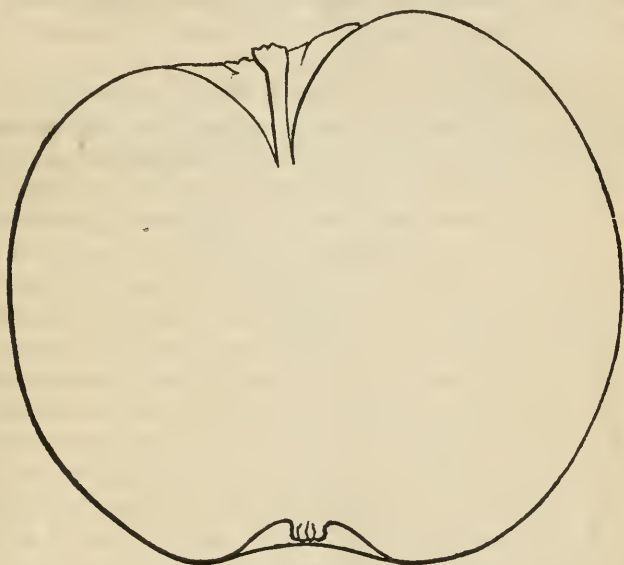


Fig. 10. Twenty Ounce Apple.

with several other new apples, selected from the orchards of the west, and the past year it produced two very beautiful specimens, not quite so large as those exhibited by Mr. Howland but of the size shown in our engraving, (*fig. 10*;) the tree from which they were gathered not being more than four feet high. If proves fully equal to the character we then gave it, and taking all its qualities into consideration, it must rank as one of the finest early winter apples we possess. Where it originated we have no information. The trees appear to be mostly confined to Cayuga county, New York.

Size, large, about three and a half inches deep and four broad: *Form*, round, regular, slightly ribbed at the base:

Skin, fair, smooth, dull yellowish green in the shade, but nearly covered with bright orange red, in numerous short stripes, mottlings and splashes, and dotted with rather large prominent grayish specks: *Stem*, short, about half an inch, rather slender, and moderately inserted in a somewhat contracted deep cavity: *Eye*, medium size, closed, and sunk in a medium sized open basin: *Flesh*, yellowish white, rather coarse, crisp and tender: *Juice*, plentiful, pleasantly acid, and high flavored: *Core*, large and rather open. Ripe in November and keeps till January.

II. NORTHERN SPY. *Mag. of Hort.* Vol. X. p. 275.

IN the latter part of May 1844, specimens of the Northern Spy were exhibited at the rooms of the Massachusetts Horti-

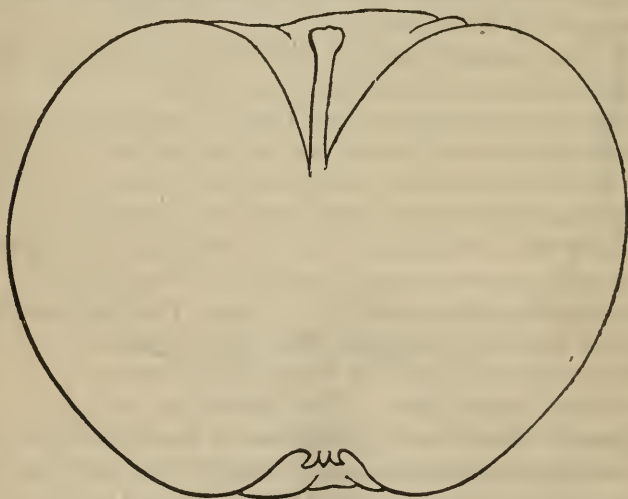


Fig. 11. Northern Spy Apple.

cultural Society, from Messrs. Ellwanger and Barry, of Rochester, New York. This was its first introduction to the notice of Eastern cultivators; it proved to be a fine apple, and trees were much sought after by amateurs and nurserymen. From Rochester, many trees were sent to this vicinity, and the variety is now pretty generally distributed.

We are therefore happy to have the opportunity to give an account of it, and an engraving from some superior specimens

recently sent us by J. H. Watts, Esq. of Rochester. A variety possessing such superior qualities is deserving of the most extensive cultivation. It has been stated by some writers in Western New York, that when the trees become old they produce only small and inferior fruit, and that it is only for a few years, when they are in their greatest vigor, that they bear good-sized and sound apples: this has also been contradicted, and we should think that the statement might be rather premature; for the variety is so new that few large orchards can yet exist, and the difference of soil or location may make much difference in regard to the fairness of the product. At any rate, it is a variety well worth cultivation, for in our estimation it is fully equal to any apple we possess, not excepting the Baldwin, the favorite of New England. The following information in regard to its origin, &c. has been communicated by Mr. Watts:—

“I take great pleasure in sending you a box of Fruit, known with us as the Northern Spy apple.

“My object (this season) has been to introduce it, believing it to be equal to any grown. One of its peculiar properties is that it keeps so well in ordinary seasons: it is in its perfection in April and May, and is then as fresh as a June apple. This year now the past one, all fruit has ripened earlier with us than usual, and consequently many of the Spys are ripe. For a description, and somewhat of its history, I am indebted to the *Genesee Farmer*, of the year 1845. It originated in the town of East Bloomfield, state of New York, in the orchard of the late Oliver Chapin, and has been known but for some five or six years. The first of the fruit seen in our city, a friend tells me, he discovered in the month of May, 1841, and he was delighted with its appearance and soon discovered its fine flavor, and on inquiry he found that it was a supposed seedling or natural fruit, and it has proved so, and one which has not its superior in our country.

“Young trees, or those that have carefully been pruned, produce abundant crops, and the fruit is of large size and extremely beautiful.

“The tree is a rapid, upright and handsome grower, wood dark brown, covered with gray-colored specks or dots. Very easily distinguished from any other. Fruit somewhat conical.

cal, sometimes slightly ribbed and frequently will measure twelve inches in circumference; stalk about three fourths of an inch, set in a broad deep cavity. Eye deeply set in a broad deep basin. Color pale green in the shade—dark red on the sunny side. Those fully exposed to the sun are entirely covered with a fine deep red. Flesh yellowish white, tender, juicy and high flavored, with a peculiar musky perfume. *The Farmer* says—"This, like all popular fruits, is counterfeited by the men and boys who sell fruit around the streets and corners, and every apple they can find that in any way resembles the Northern Spy is so called." To show you how much prized amongst us, I need only say that while other apples—such as "Swaars," "Spitzembergs," "Bell-Flowers," "Seek-no-Further," and other choice fruit, sell for one dollar per barrel, the "Spys" bring from two dollars and fifty cents to three dollars per barrel. Our Farmers and Horticulturists have been grafting of this fruit to a great extent, and in two years more it will be quite plenty and will still command a high price.

"The samples sent are taken from a barrel of a lot of sixty-eight barrels, which I purchased this season, and I have been particularly gratified that I have had it in my power to send them abroad.

"They have been admired in New York, Albany, Connecticut, Michigan, and I presume in Europe, as some have been sent there, and those I now send you I hope shall *find favor* in the eyes of the Bostonians."

We add our description from specimens before us :—

Size, large, about two and a half inches deep, and three and a half broad : *Form*, roundish conical, flat and broad at the base, tapering much towards the crown, which is small : *Skin*, fair, smooth, yellow on the shady side, but nearly covered with bright glossy red and distinct stripes of rich purplish crimson extending nearly to the eye : often having a blotch of russet around the stem, and covered with yellow scattered specks : *Stem*, short, about half an inch, rather slender, and very deeply inserted in a large wide open cavity : *Eye*, small, and rather deeply sunk in a medium-sized, somewhat ribbed, and abruptly depressed hollow : *Flesh*, yellowish white, fine, crisp and tender : *Juice*, plentiful, and brisk, of a rich subacid,

possessing a peculiarly delicious aromatic flavor : *Core*, medium size, rather open. Ripe in January, and keeps till June.

III. RED CANADA.

The Red Canada (fig. 11), is a new fruit, recently introduced from the vicinity of Toronto. Our specimens, which

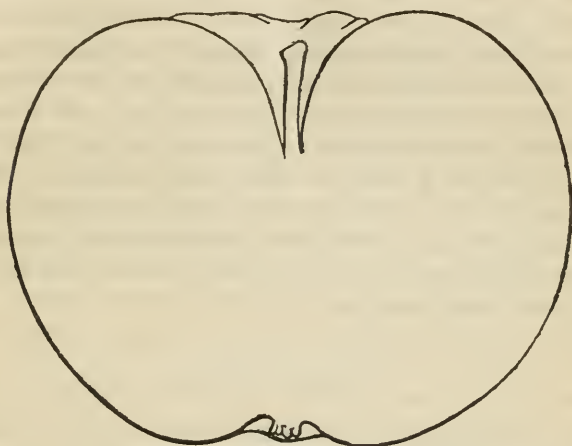


Fig. 12. Red Canada Apple.

are very handsome, were sent us by the kindness of our correspondent, J. W. Bissell of Rochester, to whom we have before acknowledged our indebtedness for similar favors. His letter accompanying the apples gives the following information in relation to this variety :—

“ It gives me great pleasure to send you some specimens of the Red Canada apple. Though not as much puffed, they are more of a favorite than the Northern Spy, and such as I now send you sell readily at two cents each. The branches of the tree are bright colored and the shoots very slender. Season, January to April. The first scions were brought here many years since by Hall Colby, from near, Toronto, C. W. where the apple is supposed to have originated.”

The apples are large, fair and handsome, and of superior excellence ; but upon a careful comparison with the Northern Spy, Baldwin, and other first-rate sorts, we are inclined to give the preference to the Spy. The Red Canada is a firmer

fleshed and less acid apple, but it is wanting in that peculiarly rich and delicious aroma which places the Spy, in our estimation, among the very best apples which have yet been brought to notice.

Size, large, about two and a half inches deep and three broad : *Form*, roundish, flat and slightly rubbed at the base, narrowing a little towards the crown : *Skin*, fair, smooth, dull yellowish green in the shade, covered with dull red on the sunny side, with some indistinct stripes of a brighter tint, and rather thickly covered with large, prominent, yellow specks : *Stem*, short, about half an inch, rather slender, and inserted in a moderately deep, somewhat open cavity : *Eye*, quite small, closed, and slightly sunk in a very small, shallow, furrowed basin; segments of the calyx long : *Flesh*, greenish white, fine, firm, and breaking : *Juice*, very abundant, brisk, pleasantly acid and high flavored. *Core*, medium size, rather close. Ripe from January to April.

ART. VI. *Descriptive Account of Prince's Paragon Peach.*
By W. R. PRINCE, Flushing, L. I.

I PROMISED you, some time since, a description of Prince's Paragon peach, and now transmit the same. I am positive as to the fact that the variety which has been disseminated by some under this name, is erroneous, and I doubt whether the true kind is in any nursery collection, unless received from this establishment.

PRINCE'S PARAGON PEACH.—A freestone; large size, perfect oval; skin yellowish green, red next the sun; groove slightly depressed, deepening at the extremity with a distinct mame-lon; a rounded cavity at the stem of moderate depth; flesh white, red at the stone, very juicy, sweet, rich, and luscious, surpassed by very few; stone large, rough, of a dull reddish brown hue; ripens September 15th to 22d; flowers large; glands globose. The tree is very vigorous, attains a large size, and bears moderately, thus allowing each fruit a full expansion.

Linnaean Bot. Gard. and Nurs., Flushing, L. I., Dec. 1846.

ART. VII. *Floricultural and Botanical Notices of New and beautiful Plants, figured in foreign periodicals; with Descriptions of those recently introduced to, or originated in, American gardens.*

IN our notices of new plants in our past volumes, we have endeavoured to make our pages a record of nearly everything which has been introduced into foreign collections; fully describing those worthy of general cultivation, and briefly those of mere botanical interest. To enable us to do this, we have incurred much expense in procuring the various periodical works devoted to the subject, and it has been our object to make this article interesting to all: such, we believe, it has been. But the researches of collectors have been carried so far, that of the many plants which have been recently introduced, only a few of those figured, in comparison with the whole, possess that beauty which commends them to the attention of the amateur, and as our room is somewhat restricted by an increasing number of contributors, we shall hereafter, in order to enable us to keep up with their publication, only describe those plants which appear really worthy of introduction into gardens.

1. FU'CHSIA MACRA'NTHA *Hooker* Large flowered Fuchsia,
(Onagrææ.)

A green-house plant; growing four feet high; with rosy crimson flowers; appearing all summer a native of Peru; increased by cuttings; grown in loam and leaf mould; Pax Mag. Bot. xiii. p. 97.

This is one of the most splendid fuchsias that has yet been introduced. Though quite distinct from others, "it most resembles *F. fulgens*, being dwarf, and similar in habit; but it differs from that species in its very dark green foliage, and the gay color, and uneven length of its flower tubes. In this latter respect, it comes near to *F. corymbiflora*, but the form of inflorescence in the two species is quite different, and completely so the color of the flowers;" *F. macrantha* being of a rich glowing rosy crimson. The flowers when well grown are full six inches long, and the whole contour of the plant is one of great beauty. It will probably prove a valuable species for hybridization. It is as easily cultivated as the common

varieties, and blossoms abundantly. It was introduced from Peru, and is well worthy a place in every collection of plants. (*Pax. Mag.* June.)

2. AZA`LEA OBTU`SA *Lindl.* Blunt-leaved Azalea, (*Ericaceæ.*)

A green-house shrub ; growing three feet high ; with red flowers ; appearing in spring ; a native of China : increased by cuttings ; grown in rough sandy peat. *Bot. Reg.* 1846 t. 35.

This is one of the azaleas introduced by Mr. Fortune from China, and in addition to its other merits, it has that of being "sweet scented like a Sweet briar." It is described, "as the gayest of all the Chinese azaleas in cultivation. It is a little bush, with very blunt leaves, both smaller and narrower in proportion than we find upon the species already in our gardens, and also smaller flowers of the most glowing red." It is a free flowerer, and of dwarf habit. The species requires the same treatment as *A. Danielsiana*, viz. to be potted in rough sandy peat, and the wood well ripened. It is increased by cuttings in the usual way. (*Bot. Reg.* July.)

3. BEGO NIA A`LBO COCCI`NIA *Hooker* White and Scarlet Begonia, (*Begoniaceæ.*)

A stove plant ; growing two feet high ; with white and scarlet flowers : appearing in summer : a native of India, increased by cuttings ; grown in peat and leaf mould. *Bot. Reg.* 1846 t. 39.

The tribe of begonias is but little cultivated in American collections ; yet there are some species of great beauty, and as they flourish well in our climate under green-house treatment, it is to be regretted that they are not oftener seen. The present subject is one of great splendor ; having the outside of the calyx vivid scarlet, and the inside of that organ and the petals of a snowy whiteness, thus presenting a great contrast. For bouquets, it would be invaluable. The treatment of this family is simple : merely keeping them in a warm and dry place in winter, starting them into growth in little heat in February, and keeping them in the green-house in summer, where they will form the finest objects among achimenes, gloxinias, &c. This species should be immediately introduced. (*Bot. Reg.* July.)

4. CALYSTE`GIA PUBE`SCENS *Lindl.* Downy Bindweed, (*Convolvulaceæ.*)

A halfhardy climbing plant ; growing six feet high ; with pink flowers : appearing in July and August : a native of China ; increased by the root ; grown in any good soil. *Bot. Reg.* 1846 t. 42.

" This is the first plant of its order that has been found, pro-

ducing double flowers : they are about as large as those of a double anemone, but the petals are arranged with the irregularity of the rose ; they are of a pale delicate pink, and remain expanded some days." It was found by Mr. Fortune, in Shanghai, and was sent home as a double convolvulus. It is a fine addition to our climbing plants, and as it grows readily in any good soil, it would undoubtedly form a splendid object turned out into the open border in summer, in the same way as we have recommended for *Ipomæa Léarii*. It flowers freely. (*Bot. Reg.* Aug.)

5. GARDE'NIA FLO'RIDA VAR. FORTUNIA'NA Mr. Fortune's Gardenia, (*Cinchonaceæ*.)

A green-house plant ; growing two feet high : with white flowers ; appearing in summer ; a native of China ; increased by cuttings ; grown in leaf mould and peat. *Bot. Reg.* 1846 p. 43.

One of the most magnificent things which has recently been introduced, ranking "on a level with the double white camellia, which it equals in the beauty of the flowers and leaves, and infinitely excels it in its delicious odor." It is thus spoken of in the *Journal* of the Hort. Soc. :—"The common single and double varieties of this plant are known to any one. That which is now noticed differs merely in the extraordinary size of the flowers, which are nearly four inches in diameter, and in having fine broad leaves, sometimes as much as six inches long. The flowers are pure white, changing to light buff as they go off, and not unlike a very large double camellia. Their calyx has the long broad lobes of the original species, instead of the narrow lobes, at least twice as short as the tube of the corolla of *G. radicans*, by which that species is technically known." Such a description should induce every cultivator to possess what has so long been wanted—a white camellia with a delicious perfume. It comes from the North of China, where it was found by Mr. Fortune, and although nothing is said of its treatment, it is probably as hardy as the camellia. It is a noble acquisition. (*Bot. Reg.* Aug.)

6. ÆSCHYNA'NTHUS BOSCHIA'NUS Pax. VandenBosch's Æschynanthus. (*Gesneriaceæ*.)

A stove plant ; growing two feet high ; with scarlet flowers ; appearing in spring : a native of Java ; increased by cuttings : grown in moss, peat and leaf mould. *Pax Mag. Bot.* xiii. p. 175.

All the Æschynanthuses are handsome plants, but the present species is peculiarly so from its abundant blooming, pretty

trailing habit and brilliant flowers. "It will grow freely, rather too much so, as will most of its family if planted in ordinary soil, and kept in the stove, or even in the green-house; but to flower it well it requires to be kept dry in the winter, and brought into a higher temperature: after the blossoms have begun to develop themselves, they will flourish well in the green-house. It is a fine species and worthy of introduction. (*Pax Mag.* Sept.)

7. *LILIUM SANGUINEUM* *Lindl.* Blood Red Lily (*Liliaceæ.*)

A hardy bulbous plant: growing eighteen inches high: with dark red flowers: appearing in June: a native of Japan: increased by offsets: grown in loam and leaf mould or peat. *Bot. Reg.* 1846, p. 50.

This lily is said to be one of the discoveries of Siebold, who introduced the superb lancifolium, in his Japan expedition. In general appearance, it comes near to our *L. philadelphicum*, having an upright and quite dwarf habit, attaining only the height of twelve or eighteen inches, and terminated with "its large solitary orange red flower." It has proved perfectly hardy in the garden of the Horticultural Society—and no doubt it will prove as hardy with us as the *L. japonicum* or *eximium*. It is readily propagated by offsets, thriving well in light loam and peat with a little well decomposed manure. Mr. Groom, who presented the bulbs to the Horticultural Society, has succeeded in raising several hybrids between this and other species, some of which are very handsome. We shall have several of them in flower the coming spring, when we shall endeavor to give a full account of them. (*Bot. Reg.* Sept.)

MISCELLANEOUS INTELLIGENCE.

ART. I. *Retrospective Criticism.*

MODESTY.—Mr. Editor: I have been informed, either directly or by some indirect way, through the *Horticulturist*, that one object of starting that work in opposition to *Hovey's Magazine* was, that the latter was too much given to extolling the Editor's own wares. I have just spent a few leisure moments in looking over the first five or six numbers of Downing's new magazine, and find (omitting reviews) seventeen instances where he has referred to or named "*our* work on *Fruits and Fruit Trees*," and twenty

instances where he has referred to *all* other works; this does not include nearly as many more instances where correspondents have referred to "*your book on fruits,*" and where he has selected notices of "*Mr. Downing's work on fruits.*" Nor do I mean to include several references he makes to "*our book on Landscape Gardening and Cottage Residences.*"

Another Specimen.—It is well known that Professor Lindley, fifteen years ago, controverted with great ability the theory of Mr. Knight, that varieties would run out by old age. The same position was taken by Mr. Prince, Mr. Floy, and others. Last of all, Mr. Downing also assumed the same ground in his work on fruits. Now he says that he is much gratified to see Dr. Lindley, "*the highest authority in Europe,*" come out *late*ly and "*endorse our views*"!! See No. 4, p. 181.—*Respectfully yours, Veto. Rochester, N. Y. Dec. 1846.*—[Comment would be superfluous.—*Ed.*]

VAN ZANDT'S SUPERB PEACH.—I can't waste time on any anonymous remarks like the one signed P. B. in your December number, and I think you do wrong to admit such without signature, as it deprives your readers of a full knowledge of their intent and disinterestedness. To solve the question whether the nurseryman who wrote that article actually possesses the "*Van Zandt's Superb Peach,*" which, I perceive, is inserted in his *Catalogue*, and if others have it, I now offer a premium of \$10 for a single genuine fruit, to be exhibited to the Long Island Horticultural Society, the ensuing summer, by any one of the nurserymen who have inserted it in their Catalogues, the fruit to be grown by the Exhibitor. You will find that I am perfectly *au fait* in this matter, as will hereafter be proven. If they are inadvertently propagating a wrong variety, it is for the interest of all it should be corrected. I did not intend my remarks to apply to private gardens.—*Wm. R. Prince, Prince's Nurseries, Flushing, Dec. 24, 1846.*

ART. II. Massachusetts Horticultural Society.

Saturday, Dec. 5th, 1846.—An adjourned meeting of the Society was held to-day,—the President in the chair.

The Executive Committee reported that the sum of \$1,350 should be appropriated for premiums for the year 1847, and that the income from the Appleton, Lowell and Lyman funds constitute a part of the appropriation.

A Committee of three was appointed to make the annual settlement with the Mt. Auburn Cemetery.

Adjourned three weeks, to December 23d.

Exhibited.—**FRUIT:** From the President of the Society, Chaumontel, Beurré d Aremberg and Columbia, pears: also three Apples received from some unknown source—one the Cathead and the other, Fall Harvey. From Wm. Stearns, Lawrence, Winter Nelis, Bishop's Thumb, Glout Morceau, Wilkinson, St. Germain, Marsh (native) and Bleeker's Meadow, some of them very fine. From S. Downer, Passe Colmar pears. From Josiah

Lovett, Winter Nelis and Beurré Diel pears, both fine: also Minister apples. From S. W. Cole, Cranberry apples. William Thomas exhibited a variety of apples raised in Ohio, among the number the Yellow Belleflower, R. I. Greening, Cannahan's Favorite, Yellow Newtown pippin, Glorià Mundi (weighing $1\frac{1}{2}$ lbs.) Winesap, &c., all of large size.

Dec. 26th.—An adjourned meeting of the Society was held to-day—the President in the chair.

Agreeably to the by-laws, the Flower, Fruit and Vegetable Committees made their reports, awarding premiums for the past year, which were accepted and voted to be published in the *Transactions* of the Society.

The following are the Reports:—

REPORT OF THE COMMITTEE ON FLOWERS.

AWARDING PREMIUMS FOR 1846.

HYACINTHS.—For the best display of 20 kinds, to Joseph Breck &

Co., ... \$5 00

For the second best display, to R. M. Copeland, ... 4 00

TULIPS.—For the best 30 varieties, to Joseph Breck & Co., ... 8 00

For the second best, to S. Walker, ... 6 00

For the third best, to W. Quant, ... 4 00

PANSIES.—For the best 12 varieties, to Hovey & Co., ... 3 00

Green House Plants in Pots.—June 10th.

GERANIUMS.—For the best 6 varieties, to W. Quant, ... 6 00

For the second best, to William Doyle, ... 4 00

CALCEOLARIAS.—For the best 4 varieties, to William Quant, ... 3 00

CACTUS.—For the best 6 varieties, to Hovey & Co., ... 3 00

For the second best, to William Doyle, ... 2 00

FUCHSIAS.—For the best 6 varieties, to W. Quant, ... 6 00

For the second best, to Hovey & Co., ... 4 00

VARIOUS SORTS.—For the best display, 12 pots, to Hovey & Co., ... 8 00

For the second best, to William Doyle, ... 5 00

HAWTHORNS.—For the best display, to Messrs. Winships, ... 3 00

For the second best, to Hovey & Co., ... 2 00

HARDY AZALEAS.—For the best display, to D. Haggerston, ... 3 00

For the second best, to Messrs. Winships, ... 2 00

SHRUBBY PEONIES.—For the best display, to Joseph Breck & Co., ... 3 00

HERBACEOUS PEONIES.—For the best 12 flowers, to J. S. Cabot, ... 5 00

For the second best, to Breck & Co., ... 3 00

For the best display, to W. Mellar, ... 3 00

PINKS.—For the best 6 varieties, to William Mellar, ... 4 00

For the second best, to Breck & Co., ... 3 00

For the best display, to William Mellar, ... 3 00

RANUNCULUS.—For the best display, to S. Walker, ... 5 00

For the second best, to Breck & Co., ... 3 00

ANEMONES.—For the best display, to Breck & Co., ... 5 00

For the second best, to Hovey & Co., ... 3 00

Division A.—Class 1.

HARDY ROSES.—For the best 30 varieties, to Hovey & Co.,	\$ 8 00
For the second best 30 varieties, to Breck & Co.,	6 00
For the third best 30 varieties, no claimant.	
For the best display, to Messrs. Hovey & Co.,	3 00
Class II.—For the best 12 varieties, to D. Crowley,	5 00
No competitor in this class.	

Division B.—Class 1.

For the best display of Noisette, China Tea, &c. No flowers offered.	
Class II.—HARDY PERPETUALS.—Best 6 varieties, to Hovey & Co.	4 00
For the second best 6 varieties, to Breck & Co.,	3 00
HOLLYHOCKS.—For the best display, to D. Crowley,	3 00
No other competitor.	
MAGNOLIAS.—For the best display, to J. Kenrick,	3 00
For the second best display, to W. E. Carter,	2 00
CARNATION AND PICOTEE PINKS.—For the best 8 varieties, to J. L. L. F. Warren,	5 00
For the second best variety, to Breck & Co.,	4 00
For the best display, to William Mellor,	3 00
HARDY RHODODENDRONS.—Best display : none offered	
Second best display : none offered.	
PHLOXES.—For the best 10 varieties, to J. S. Cabot,	5 00
For the second best variety, to S. Walker,	4 00
For the third best variety, to Breck & Co.,	3 00
BALSAMS.—For the best display, to W. Quant,	3 00
For the second best display, to J. L. L. F. Warren,	2 00
For the third best display, to Walker & Co.,	1 00
GERMAN ASTERS.—For the best display, to William Quant,	4 00
For the second best display, to Hovey & Co.,	3 00
For the third best display, to J. W. Mandel,	2 00
INDIGENOUS PLANTS.—For the best display, to G. Gilbert,	3 00
HERBACEOUS PERENNIALS.—For the best display, to J. Breck & Co.,	6 00
For the second best display, to Messrs. Winships,	4 00
For the third best display, to P. Barnes,	3 00
ANNUALS.—For the best display, to Breck & Co.,	5 00
For the second best display, to Parker Barnes,	4 00
For the third best display, to Walker & Co.,	3 00

Division A.

DAHLIAS.—Premier Prize. For the best 12 dissimilar blooms, to W. Quant,	8 00
Specimen bloom, to William Quant,	4 00
Specimen blooms, 6 varieties, to William Quant,	6 00
Specimen blooms, 2 varieties, to William Mellor,	2 00

Division B.

Class I.—No premiums awarded.

Class II.—For the best 12 dissimilar blooms, to J. L. L. F. Warren, \$ 5 00

For the second best 12 dissimilar blooms, to Hovey & Co., . 3 00

Class III.—No premiums awarded.

Division C.

Class I.—No premium awarded.

Class II.—For the best 12 dissimilar blooms, to William Quant. . 5 00

For the second best 12 dissimilar blooms, to William Mellar, . 3 00

Class III.—For the best 6 dissimilar blooms, to Henry Reed, . 3 00

CHRYSANTHEMUMS.—For the best 12 varieties, to Daniel Crowley, 5 00

For the second best 12 varieties, to James Nugent, . 4 00

For the third best, no claimant.

PREMIUMS AND GRATUITIES

Awarded at Weekly Shows and for Objects during the Season.

To Messrs. Hovey & Co., for a fine display of Camellias,	5 00
To Wm. Quant, for the second display of Camellias,	4 00
To W. E. Carter, for the third display of Camellias,	3 00
To W. E. Carter, for a plant of Chinese Azaleas,	3 00
To Salisbury & Willot, for fine plants, Azaleas,	3 00
To the President of the Society, for seedling calceolarias,	5 00
To N. J. Becar, of Brooklyn, N. Y. for the same,	3 00
To D. Crowley, for a splendid specimen of Moss Rose,	3 00
To Wm. Quant, for pot plants, \$2, \$2, \$2,	6 00
To A. McLennan, for pot plants, \$1,	1 00
To Miss Russell for bouquets, \$2, \$2, \$2, \$1, \$2, \$2, \$1, \$1	
\$1, \$1, \$2, \$2, \$2, \$2, \$2,	25 00
To Messrs. Winships, for bouquets, \$1, \$1, \$3, \$2, \$2,	9 00
To D. Crowley, for pot plants, \$1,	1 00
To W. Quant, for bouquets, \$1, \$2,	3 00
To J. S. Cabot, for fine Pansies,	2 00
To Thomas Needham, for fine Fuchsias,	1 00
To W. Mellar, for pot plants,	2 00
To Walker & Co., for pot plants, \$1, \$1,	2 00
To P. Barnes, for pot plants,	1 00
To J. L. L. F. Warren, for bouquets, \$1, \$1, \$1, \$1, \$1, \$1,	6 00
To the President of the Society, for a splendid display of Roses,	5 00
To Messrs. Winships, for fine Prairie Roses,	4 00
To Messrs. Hovey & Co., for pot plants, \$2, \$2,	4 00
To Walker & Co., for bouquets, \$1, \$2,	3 00
To Messrs. Hovey & Co., for a superb <i>Veronica speciosa</i> ,	5 00
To R. West, for bouquets, \$2, \$1, \$2, \$1, \$2, \$1, \$1,	10 00
To W. Quant, for <i>Stephanotus floribundus</i> ,	3 00
To the President of the Society, for Japan Lilies, &c.,	3 00
To J. L. L. F. Warren, for seedling Picotees,	2 00
To P. Barnes, for very fine Hollyhocks,	2 00

To Messrs. Hovey & Co., for superb specimens of Japan Lilies,	\$3 00
To W. Doyle, for bouquets, \$1, \$2, \$1, \$2, \$1,	7 00
To James Nugent. for bouquets, \$2,	2 00
To P. Barnes, for bouquets,	1 00
To W. E. Carter, for <i>Scilla maritima</i> ,	1 00
To W. E. Carter, for fine seedling <i>Phloxes</i> ,	3 00
To W. Doyle, for <i>Cattleyana Harrisonii</i>	2 00
To E. W. Carter, for <i>Hedychium Gardnerianum</i> ,	2 00
To Messrs. Winships, for <i>Aloe</i> sp.	2 00
To J. W. Mandell, for bouquets,	1 00
To W. Doyle, for <i>Stanhopea oculata</i> ,	2 00
To the President, for Dahlias,	5 00
To P. Barnes, for fine specimen of <i>Ipomopsis picta</i> ,	2 00
To J. L. L. F. Warren, for <i>Gladiolus belviderus</i> ,	2 00
To D. Haggerston, for Stove plants,	5 00
To Walker & Co., for displays of Annuals, &c. during the season,	3 00
To W. E. Carter, for the same,	3 00
To W. Quant, for the same,	3 00
To W. Miller, for the same,	3 00
To Messrs. Hovey & Co., for the same,	3 00
To W. B. Richards, for the same,	3 00
To A. Aspinwell, for fine display of Roses,	5 00
To L. Davenport, for the same,	3 00
To Messrs. Winships, for fine Shrubs during the season,	5 00
To Messrs. Winships, for fine specimens of <i>Yucca gloriosa</i> , filamentosa and superba,	2 00
To E. W. Carter, for <i>Polyanthus</i> ,	2 00
To W. E. Carter, for <i>Spiræa japonica</i> , <i>Pentstemon Murrayanum</i> ,	2 00
To J. Breck & Co., for displays of flowers during the year,	24 00
	\$500 00

REPORT OF THE COMMITTEE ON FRUITS,

AWARDING PREMIUMS FOR 1846.

The Committee on Fruits have awarded the following premiums for the year 1846.

SPECIAL PRIZE LIST.

In accordance with a vote of the Society, and by the liberality of a gentleman desirous of advancing Horticultural Science, offering one Hundred Dollars a year, for three years.

APPLES.—For the two best varieties and specimens of Summer Apples :

To Otis Johnson, for the Red Astrachan, . . . \$5 00

To Otis Johnson, for the Early Bough, . . . 5 00

For the two best varieties and specimens of Autumn Apples,

To George Hyde, for Gravenstein, . . . 5 00

To Otis Johnson, for the Porter, . . . 5 00

For the two best varieties and specimens of Winter Apples,	
To George Walsh, for Baldwin, ...	\$ 5 00
To S. Walker, for R. I. Greening, ...	5 00
PEARS.—For the two best varieties and specimens of Summer Pears,	
To Otis Johnson for Jargonelle, ...	5 00
To S. Pond, for Williams's Bon Chrétien, ...	5 00
For the two best specimens and varieties of Autumn Pears,	
To S. Walker, for Fondante d'Automne, ...	5 00
To S. Downer, Jr., for Louise Bonne de Jersey, ...	5 00
For the two best varieties and specimens of Winter Pears,	
To J. S. Cabot, for Beurré d' Aremberg, ...	5 00
To Josiah Lovett, for Winter Nelis, ...	5 00
CHERRIES.—For the three best varieties of Cherries,	
To Otis Johnson, for Black Tartarian, ...	5 00
To George Walsh, for New Large Black Bigarreau, ...	500
To J. F. Allen, for Sweet Montmorency, ...	5 00
PLUMS.—For the three best varieties of Plums,	
To J. F. Allen, for Green Gage, ...	5 00
To S. R. Johnson, for Washington, ...	5 00
To Joseph Lovett, for Reine Claude Violet, ...	5 00
PEACHES.—For the two best varieties of Peaches,	
To J. F. Allen, for Bellegarde, ...	5 00
To Josiah Lovett, for Grosse Mignonne, ...	5 00
\$ 100 00	

AT THE ANNUAL EXHIBITION IN SEPTEMBER.

APPLES.—For the greatest number of kinds, and the best grown,	
to B. V. French, ...	\$10 00
For the 2d best do., to George Hyde, ...	5 00
For the 3d best do., F. W. Macondry, ...	3 00
PEARS.—For the greatest number of kinds, and the best grown, to	
M. P. Wilder, ...	10 00
For the 2d best do., to S. Walker, ...	5 00
For the 3d best do., to J. S. Cabot, ...	3 00
GRAPES.—For the best exhibited, to David Haggerton, ...	
For the next best exhibited, to Thos. Needham, ...	7 00
For the next best exhibited, to Hovey & Co., ...	5 00
For the greatest number of varieties, and the best grown, to	
J. F. Allen, ...	10 00
For the next best do., to Wm. Quant, ...	5 00
ASSORTED FRUIT.—For the best basket of Fruit, of various kinds,	
to Otis Johnson, ...	10 00
For the best dish of Apples, not less than 12 specimens of one variety, to Hyde & Co., ...	5 00
For the 2d best do., to Otis Johnson, ...	3 00
For the best dish of Pears, not less than 12 specimens of one variety, to J. F. Allen, ...	5 00

For the next best do., to S. Walker, . . . \$ 3 00

PREMIUMS DURING THE SEASON.

APPLES. —For the best summer Apples, on or before the 1st September, to Otis Johnson, ...		6 00
For the next best do., to A. D. Williams, ...		4 00
For the best fall Apples, on or before the 1st December, to George Hyde, ...		6 00
For the next best do., to Otis Johnson, ...		4 00
For the best winter Apples, on or before the 1st of March, to George Walsh, ...		6 00
For the next best do., to Samuel Walker, ...		4 00
PEARS. —For the best summer Pears, on or before the 1st September, to Otis Johnson, ...		6 00
For the next best do., to J. F. Allen, ...		4 00
For the best fall Pears, on or before the 1st December, to J. F. Allen, ...		6 00
For the next best do., to Samuel Walker, ...		4 00
For the best winter Pears, on or before the 1st March, 1847, to Josiah Lovett, ...		10 00
For the next best do., to J. S. Cabot, ...		6 00
CHERRIES. —For the best specimen, not less than two quarts, to Otis Johnson, ...		6 00
For the 2d best do., to George Walsh, ...		4 00
PEACHES. —For the best specimens grown under glass, to J. F. Allen, ...		6 00
For the 2d best do., to Wm. Quant, ...		4 00
For the best specimen, grown in open culture, to John Merriam, ...		6 00
For the 2d best do., to Josiah Lovett, ...		4 00
APRICOTS. —For the best specimen of Apricots, to Hovey & Co., ...		6 00
For the 2d best do., to E. E. Bradshaw, ...		3 00
NECTARINES. —For the best specimen of Nectarines, to J. F. Allen, ...		6 00
For the 2d best do., to S. Downer, Jr., ...		4 00
QUINCES. —For the best specimens of the best kind of Quinces, to Samuel Pond, ...		5 00
For the 2d best do., to Wm. Quant, ...		3 00
PLUMS. —For the best Plums of the <i>best flavor</i> , not less than two quarts, to J. F. Allen, ...		6 00
For the next best do., to E. E. Bradshaw, ...		3 00
GOOSEBERRIES. —For the best flavored and finest specimens, two boxes, to Alexander McLennan, ...		5 00
For the 2d best do., to J. Hovey, ...		3 00
CURRENTS. —For the best flavored and finest specimens, two boxes, to Otis Johnson, ...		5 00
For the 2d best do., to A. D. Williams, ...		3 00
RASPBERRIES. —For the best specimens of Raspberries, not less than two boxes, to J. F. Allen, ...		5 00
For the 2d best do., to Chever Newhall, ...		3 00

STRAWBERRIES. —For the best specimens of Strawberries, not less than two boxes, to Hovey & Co., ...		\$ 6 00
For the next best do., Josiah Richardson, ...		4 00
WATER MELON. —For the best specimen of Water Melon, to Otis Johnson, ...		5 00
For the 2d best do., to R. S. McIntosh, ...		3 00
MUSKMELON. —For the best Muskmelon, to Wm. Quant, ...		5 00
For 2d best do., Alexander McLennan, ...		3 00
FIGS. —For the best specimen of Figs, to J. F. Allen, ...		5 00
For the 2d best do., to F. W. Macondry, ...		3 00
GRAPES. —For the best specimens and the best variety of Grapes, grown under glass previous to July 1st, to D. Haggerston, ...		10 00
For the 2d best do., to J. F. Allen, ...		7 00
For the best specimen and variety of Grapes, grown under glass subsequently to July 1st, to J. F. Allen, ...		10 00
For the 2d best do., to Hovey & Co., ...		7 00
GRAPES, (Native.) —For the best specimen and variety of Native Grapes, to Kendall Bailey, ...		5 00
For the 2d best do., to J. F. Allen, ...		3 00
		\$326 00

GRATUITIES.

To J. F. Allen, for fine display of Grapes during the season, ...	10 00
To J. F. Allen, for his seedling Montmorency Cherries, ...	5 00
To Josiah Lovett, for fine display of Blackberries, ...	5 00
To Josiah Lovett, for the best Muskmelon, open culture, ...	5 00
To Charles E. Grant, for fine Native Grapes, ...	5 00
To W. H. Denning, for Beauty of Kent Apples, ...	5 00
To James Arnold, (by W. Young,) for fine specimen Grapes, ...	5 00
To Horace Gray, for fine specimen Grapes, ...	5 00
	\$371 00

REPORT OF THE COMMITTEE ON VEGETABLES,

AWARDING PREMIUMS FOR 1846.

The Committee for awarding premiums on vegetables, respectfully report the following as the result of their examination:—

ASPARAGUS. —For the earliest and best, not less than 3 bunches, to William Quant, ...		5 00
BEETS. —For the best, (pure blood beet,) during the season, not less than 12 roots, to A. D. Williams, ...		5 00
BROCCOLI. —For the best 3 heads, to J. Lovett, ...		5 00
BEANS. —For the best and earliest peck of string beans, to Thomas Needham, ...		3 00
For the best and earliest Lima beans, not less than 2 quarts, to F. W. Macondry, ...		3 00

CUCUMBERS.—For the best pair under glass, previous to the first Saturday of June, to Orr N. Town,	\$ 5 00
For the second best do., to D. Crowley,	3 00
CAULIFLOWERS.—For the best and largest, during the season, not less than 3 heads, to A. D. Williams,	5 00
CORN.—For the best and earliest sweet corn, not less than 12 ears, to A. D. Williams,	3 00
CABBAGE.—For the best drumhead cabbage, during the season, not less than 3 heads, to A. D. Williams,	5 00
For the best Savoy cabbage, during the season, not less than 3 heads, to A. D. Williams,	3 00
EGG PLANTS.—The best display, during the season, to Orr N. Town,	5 00
LETTUCE.—For the best 6 heads, before 1st Saturday in July, to Thomas Needham,	3 00
POTATOES.—For the best and earliest peck, previous to August 1, to A. D. Williams,	3 00
PEAS.—For the best and earliest peck in June, to F. W. Macondry,	3 00
RHUBARB.—For the largest and best, previous to the first Saturday in July, not less than 12 stalks, to Josiah Lovett,	5 00
SQUASHES.—For the best pure Canada squashes, not less than 6 in number, to A. D. Williams,	5 00
TOMATOES.—For the best and earliest, not less than 1 dozen, to A. D. Williams,	5 00
VEGETABLES.—For the best display and greatest variety, at the weekly exhibitions, during the season, to A. D. Williams,	10 00
For the second best do., to F. W. Macondry,	5 00
For the best display and greatest variety, at the annual exhibition, to A. D. Williams,	10 00
For the second best do., to F. W. Macondray,	7 00
CELERY.—For the best and largest blanched, not less than 6 roots, to A. D. Williams,	5 00

GRATUITIES.

To J. L. L. F. Warren, for a wreath of corn, 12 varieties,	3 00
To E. Wight, for variety of squashes,	2 00
To William Quant, for early Tomatoes,	3 00
To J. Hovey, for six heads of Lettuce,	2 00
To Thomas Needham, for a display of early cucumbers,	3 00

\$ 124 00

Exhibited.—FRUIT: From the Hon. J. S. Cabot, fine specimens of the Beurré d' Aremberg, Winter Nelis and Columbia pears. From Josiah Lovett, very fine Chaumontel, Le Curé, Passe Colmar, Beurré d' Aremberg and Glout Morceau pears. From Messrs. Hovey & Co., Cross pear and Baldwin and R. I. Greening apples. From S. R. Johnson, fine Dix and Beurré Diel pears, and a variety called the Urbaniste, probably not true.

From S. Walker, Baldwin, R. I. Greening and Nonsuch apples. From Dr. Hedge, Cambridge, Easter Beurré pears. From A. D. Williams, R. I. Greening, Baldwin, Winter Sweet Greening and Pearmain apples. From George Walsh, Baldwin and Hubbardston Nonsuch apples, and fine Easter Beurré pears. From John Dudley, Cambridge, Winter Bon Chrétien pears. From John Owen, Isabella and White Risling grapes, and Granny Earle apples, the latter small but good.

Saturday, Jan. 2d, 1847.—The quarterly stated meeting of the Society was held to-day—the president in the chair.

Parker Barnes declined serving on the Flower Committee, and W. B. Richards was elected to fill the vacancy.

The Finance Committee made their annual Report, as follows:—

Receipts during the year, from all sources,	\$ 3,346 34
Expenditures during the year, . . .	\$ 3,286 76
Balance in the Treasury, . . .	59 58
	----- \$ 3,346 34

The Committee reported the property of the Society, including the New Hall, to be valued at \$42,035, the only debt being a mortgage of \$15,000, payable in 1848.

On motion of S. Walker, it was voted, that a gold pencil case, pen and inkstand, or any other articles to the amount of \$50, be presented to Dr. E. Wight, for his long and faithful services as Secretary of the Society.—Messrs. S. Walker, C. M. Hovey and E. M. Richards, were chosen a committee to procure the same.

An amendment to section XX of the by-laws, was proposed by S. Walker, and entered upon the records; the amendment strikes out all after the word “them” in the 23d line.

The following persons were elected honorary and corresponding members of the Society.

Honorary.—Baron Justis Liebig, Geissen, Prof. Lindley, London, Hon. Theodore Frelinghuysen, New Jersey, Col. T. H. Perkins, Boston, J. P. Cushing, Esq., Watertown, Judge Davis, Boston, Josiah Bradlee, Esq., Boston, S. H. Smith, Esq., Providence, Dr. Israel Munson, New Haven.

Corresponding.—Prof. Asa Gray, Cambridge, E. N. Hosford, Albany, Rev. Henry Colman, Rev. H. W. Beecher, Indianapolis, A. B. Allen, N. York, L. Tucker, Albany, T. Rivers, Sawbridgeworth, Eng., M. Laffay, Paris, R. Buist, Philadelphia, J. B. Russell, Cincinnati, Dr. William D. Brinkle, Philadelphia, Capt. James P. Gerry, U. S. N., Hon. George Lunt, Newburyport, E. Beck, Esq., London, C. Mackintosh, Dalkeith, Scotland, Joseph Paxton, Chatsworth, Eng., R. Glendenning, Chiswick, London.

Adjourned one week, to January 9th.

Saturday, Jan. 9th.—An adjourned meeting of the Society was held to-day,—the President in the chair.

The Executive Committee reported, that, as there was no Decorating Committee appointed, and as \$200 has been appropriated for that purpose, the apportionments be altered as follows:—\$650 to Flower Committee:

\$550 to the Fruit Committee, and \$150 to the Vegetable Committee, and the report was accepted.

The committee chosen to settle with the Mount Auburn Cemetery, reported that they had duly attended to the same, and had received from the Treasurer of that Association, the sum of \$3,233 41, being one fourth of the net proceeds, the proportion belonging to the Society.

It was voted that the Lowell medal should be of the same valuation as the Appleton medal, and the Committee on medals were authorized and instructed to procure suitable dies for the purpose.

It was voted that the sum of \$300 be placed at the disposal of the Library Committee for the increase of the Library, and that said committee report a list of books which it is desirable to purchase; also, voted to authorize the committee to appoint a Librarian with a salary of \$50 per annum.

Voted to invest \$2500 of the amount received from Mt. Auburn, for paying the debt of the Society.

Exhibited.—FRUIT: From J. Pinneo, Hanover, N. H., a variety of apples, viz: Twenty ounce (fine,) Jewett's fine red, Nonsuch, Sweet Pearmain, Golden Pippin, (!) Lebanon Sweet, Erie Sweet, Dexter and Lebanon Sour; several of them very good.

Adjourned two weeks, to January 23d.

Saturday, Jan. 23d.—An adjourned meeting of the Society was held to-day—the President in the Chair.

The Executive Committee reported the list of premiums for the present year, which was accepted and placed in the hands of the publishing committee.

The Executive Committee also offered a resolution upon the subject of Prospective Premiums, which was accepted; and the resolution was placed in the hands of the Committee for establishing premiums, who made a report as follows:—

Prospective premiums for objects to be originated subsequent to A. D. 1846, and which, after a trial of five years, shall be deemed equal or superior, in quality and other characteristics, to any now extant.

For the best seedling Pear, the Society's large gold medal,	. \$60
For the best seedling Apple, the Society's large gold medal,	. 60
For the best seedling Hardy Grape, the Society's large gold medal,	. 60
For the best seedling Plum, the APPLETON gold medal,	. 40
For the best seedling Cherry, the LOWELL gold medal,	. 40
For the best seedling Strawberry, the LYMAN plate,	. 50
For the best seedling Raspberry, the LYMAN plate,	. 50
For the best seedling Hardy Rose, the Society's large gold medal,	. 60
For the best seedling Camellia, the Society's large gold medal,	. 60
For the best seedling Azalea indica, the LOWELL gold medal,	. 40
For the best seedling Tree Pæony, the APPLETON gold medal,	. 40
For the best seedling Herbaceous Pæony, LOWELL gold medal,	. 40
For the best seedling Potato, the Society's large gold medal,	. 60

The Report was accepted, and ordered to be published.

Adjourned two weeks, to February 6th.

[Want of room compels us to omit the premiums offered for 1847 till our next number.]

Exhibited.—**FRUIT**: From the President of the Society, Nonsuch apples and fine Easter Beurré pears; also a variety of apples received from various sources, among which were the *Æsopus Spitzemberg* (very fine,) *Winter Pennock* (poor,) *Fall Harvey*, in good preservation, but flavor indifferent. Messrs. Hovey & Co. exhibited *Baldwin* apples, and *Bergamotte de Parthenay* pears; also handsome *Northern Spy* apples received from J. H. Watts, Esq., Rochester, New York, which the committee pronounced very fine.

ART. III. *Answers to Correspondents.*

We now resume our answers to correspondents, and shall endeavor hereafter not to allow so long a space to occur again.

POLMAISE HEATING.—*J. C.*—We intend to give a full account of this method of heating as soon as we can find room: a great deal has been said in its praise in the English papers, and from a small apparatus which we have erected in one of our houses on the plan, we think much more favorably of it than formerly. A few years ago we tried to heat a small house, with a furnace, in the same way that dwellings are warmed; but the furnace was not of sufficient power, or properly constructed, and we erected a common furnace with flues, in its place. Since the principles of Polmaise have been so ably elucidated, we have pulled down the old one, and erected another, combining that system with the common flue, and we find it to work so well, that we should recommend it to the attention of amateurs for further trial. We shall offer some facts which we think will show its economy over flues or hot water.

ACHIMENES PICTA.—*An Amateur.*—This most beautiful species first flowered here in our collection in the Summer of 1845, and subsequently found its way into many choice collections of plants; it is the most brilliant of the tribe, and is as easily cultivated as either of the other species. The little corms or tubers should now be potted in a soil of leaf mould and peat, with little sand, and placed in a hotbed or very warm place in the greenhouse, where they will soon begin to grow. When they have made four or five leaves, they may be potted off singly into small pots, or in shallow pans, eight inches broad, *five* or *seven* plants in each; in this way, they flourish well, and make a splendid show; give a good drainage. We shall endeavor to offer an article on this tribe soon.

SCARLET PELARGONIUMS.—*X.*—Many of the new kinds are a great improvement upon the old ones; the following comprise six new and choice varieties: *King*, *Ingram's Dwarf*, *Mallason's No. 1*, *Mallason's No. 2*, *Nimrod* and *Huntsman*. They are all profuse flowerers, and of dwarf habit.

JAPAN LILIES.—*I. W. J.*—We shall endeavor to comply with your wishes, and should probably have done so before, had we not misplaced a draw-

ing, taken from a superb specimen last summer, which we intended should accompany our article; our plants last season were the admiration of all, some of them producing sixty flowers. In the mean time we advise planting in a compost of leaf mould and peat in equal parts, with a small quantity of sand.

THE BEST VARIETIES OF APPLES, PEARS, CHERRIES AND PLUMS.—*S. D. Redfield*.—The earliest and best four summer APPLES are the Early Harvest, Bough, Red Astrachan and Williams's Favorite: the best four Fall, Porter, Gravenstein, Fall Pippin and Lyscom: the best four Winter, Baldwin, R. I. Greening, Russet and Northern Spy. The earliest and best three summer PEARS, are the Citron des Carmes, Jargonelle and Bloodgood: the best three Fall, Williams's Bon Chrétien (Bartlett,) Louise Bonne de Jersey, Paradise d'Automne: the best four Winter, Beurré d' Aremberg, Winter Nelis and Glout Morceau. The two earliest and best CHERRIES, are the Mayduke and Black Tartarian: the two best late, Downer's late Red and Sweet Montmorency. The two earliest and best PLUMS, Bradshaw's and Green Gage: the two latest and best, Jefferson and Coe's late Red. In giving these names, we should remark that there are many others equally deserving of the same rank. The Strawberry grape is a very good native variety, quite new, but well worth cultivation.

MILDEW ON GRAPES IN VINERIES.—*M. C. Johnson*.—Old vines are in no way more subject to mildew than young ones, so far as our experience goes: and we believe this is the opinion of grape-growers generally. How far Mr. Kenrick's views are correct in relation to trailing on or near the ground, we have no knowledge, as we do not think the experiment has been tried here. We do not doubt ourselves, but that a trellis over an inclined plane paved with brick or stone would be highly advantageous and greatly promote ripening as well as check mildew, from the greater humidity which they would enjoy. In an account of a very successful mode of cultivation of the grape in houses without heat, which we gave in a previous volume, (IX, p. 86) the excellence of the fruit was in a great degree attributed to the paved floors, which were watered when they became heated by the sun, and thus gave off an abundance of moisture of a genial temperature. Probably paving in the open air would have a similar effect; and by watering induce a humidity which would check the mildew. We hope our correspondent will try this mode, and we should be glad to know the result. The objection of Mr. Johnson is a good one, viz:—that the flowers as well as fruit might suffer from the effects of heavy rains: to obviate this, the distance of the trellis from the pavement should be increased. In the vineyards of France, the vines are trained to stakes about three feet high, but we gathered very fine fruit within one foot of the ground—and the crop, so far as we observed, was exceedingly good—satisfactory results can only be arrived at by actual experiment.

PLANTS.—*L. P. Hopkins*.—As you invite questions from your subscribers, I propose the following:—

1. Should Gloxinias and Gesneras be kept absolutely without water during the winter, and allowed to die down to the ground?

Yes. In the month of November, we place the pots underneath the stage, turning them upon their sides, where they remain till February, when they are again repotted and started into growth in a mild heat.

2. What is the proper mode of treating tuberous rooted geraniums?

We have not had much experience with this class: they should, however, be managed similarly to other tuberous rooted plants: keeping them rather dry in winter, and potting them in fresh soil in March, and placing them in the warmest part of the house until they are well established.

3. How should Fuchsias be treated after flowering? Should they be allowed to rest or encouraged to grow?

They should be allowed to rest. In December we place the plants under the stage, and only give them an occasional watering, when they are quite dry, till February or March; they are then shifted into new pots, rubbing off the loose soil, and either headed *quite down* to the ground or all the lateral branches cut off to within an inch or two of the main stem; they will then make fine flowering plants by the month of June.

4. How should Cape Jasmine be treated, to make it flower, and to prevent the leaves from turning yellow?

Keep the plants rather dry during winter, and in March bring them into a temperature of 75° or 80° with more moisture, which will start them at once into growth; by May they can be placed in the greenhouse, or even in June plunged in the open ground, and they will retain the verdure of their leaves the year round, and bloom abundantly. The soil should be leaf mould, peat and sand.

5. How can *Fuchsia corymbiflora* be made to flower? I have several plants of it, some old ones, and some raised within the year from cuttings—they make a luxuriant growth, but refuse to flower, though I have kept them almost without water for two months at a time.

We have never seen this superb species in good condition in our gardens; but we have described many fine plants which we saw in Europe, though it is there generally considered a rather difficult plant to manage well; it is a most luxuriant grower, and the only way to bring it into bloom is to confine it to a moderate sized pot, and bend down the top of the shoot to make it throw out laterals, which soon form flower buds.

6. What is the easiest mode of propagating the Oleander?

Placing the cuttings in phials of water, in a temperature of 75° or 80°, until they emit roots, when they should be potted off into a light rich soil, composed of leaf mould, peat and sand.

Our correspondent is informed that, in our previous volumes, excellent articles have appeared on the culture of the Azalea, Gardenia, Camellia, Fuchsia, and, indeed, upon every popular plant.

RAISING GRAPE VINES FROM SEEDS.—*A Subscriber*.—I see no reason why we may not have as great variety of hardy grapes adapted to the climate, as apples, and propose to plant a quantity of seed from several different kinds. As you have kindly offered to devote a portion of your valuable Magazine for the purpose of answering inquiries,—will you please inform

me, through that medium, the best method of treating that seed. Loudon and other writers give us directions for planting other seed and for taking care of the young plants, but are silent about grape seedlings.

We are glad to find the culture of the grape, from seed, is attracting more attention; and we are happy to give all the information we possess to aid those who will make the attempt; convinced as we are, that it is to hybrids that we must look for varieties for *out-door* cultivation in our climate.

Our experience is rather limited, but we have now some hundreds under way, a few of which we hope to see in fruit the present year. Our plan has been to sow the seeds in boxes in February or March, placing them in a greenhouse, if one is at hand, if not, in a hotbed, or even a frame; they will soon make their appearance above ground, and when two inches high, they should be potted off singly into small pots, and afterwards shifted, according to their vigor. The second year they are turned out into the open ground about the first of June, where they soon make vigorous shoots, and on the approach of winter are protected with a covering of coarse litter, or leaves. Their after treatment is the same as for vines raised from cuttings or layers. If A Subscriber will turn to our vol. IX, p. 373, he will find some capital directions on this head, from our correspondent, Mr. Camak of Georgia.

HORTICULTURAL MEMORANDA

FOR FEBRUARY.

FRUIT DEPARTMENT.

Grape Vines in the forcing house will now be setting their fruit, and will need much attention, being careful to keep up a good temperature, not too high at night, but regular and even. In the greenhouse and vinery, the eyes generally begin to swell about the twentieth of this month, unless the temperature is kept very low: as soon as they begin to swell, the shoots should be loosened from their place in front, and tied loosely up to the trellis, allowing the ends to hang down. In this way, they may remain for two weeks, when the eyes will all show, and they may then be made fast to the trellis: syringe lightly, every morning and evening, in good weather. Cuttings may now be put in, if there is a hotbed at hand, if young vines are wanted. Vines in pots may now be brought into the greenhouse, where they will soon start into growth, and produce good crops.

Peach Trees and Figs in pots may now be taken into the greenhouse or vinery, and will bring forward an early crop.

Scions of trees may still be cut and placed away as we directed last month.

Orchards, where there is a great deal to do in the spring, may be pruned now, which will save time in the busy season of April and May.

FLOWER DEPARTMENT.

Pelargoniums will now require more attention. All plants which are intended to bloom well in April and May should now be repotted, if it has not been done before: eight inch pots are sufficiently small for good-sized plants, and, if they are very large, they will require about eleven inch: as soon as repotted, give them a good syringing, and, if they are attacked by the green fly, fumigate immediately. Train out the shoots carefully, and attend carefully to the watering: for further direction, we would refer to Mr. Beck's article in our last.

Roses will now be advancing rapidly, and such as appear stunted for pot room should be immediately shifted into a larger size: syringe occasionally, and fumigate to destroy the green fly.

Japan Lilies should now be repotted in the manner advised last month.

Dahlias, if wanted for very early flowering, should now be potted and placed in the warmest part of the greenhouse.

Camellias will now be in full bloom: give them abundant supplies of water at the roots, and syringe occasionally overhead: pick off all decaying flowers, and attend to impregnation, if seeds are wanted.

Verbenas should now be repotted.

Victoria Stocks will now need a shift into larger pots.

Achimenes, *Gloxinias*, &c., started in pans, should now be potted off singly into small pots.

Schizanthuses should be now shifted into large-sized pots.

Calceolarias will require potting again.

Fuchsias should now be propagated from cuttings of the new wood, if young plants are wanted.

Gladiolus Gandavensis, and *Floribundus* should now be potted for early blooming.

Sparaxis and *Ixias*, now about to bloom, should be liberally watered.

Ten Week Stocks, and other sorts of tender annuals, may now be sown for producing plants to turn out early into the border.

Nemophilas should again be potted if very large and fine plants are wanted.

Heaths should be carefully attended to; giving good supplies of water, and an occasional syringing overhead.

Azaleas now begin to show their buds, and may have a greater supply of water.

Plants in Frames should be aired in fine weather.

VEGETABLE DEPARTMENT.

Hot Beds.—In gardens, where it is desirable to have early cucumbers or vegetables of any kind, hot beds should be put in operation; about the middle of the month is the time to begin; the beds will not then be in readiness to plant until near the end of the month.

Cucumbers should be planted in small pots, three seeds in each, and allowed to grow until they are hilled out next month.

Lettuce, *Radish*, *Egg Plants*, *Marjorum*, *Tomato*, *Celery* and other seeds, should be immediately sown in order to have early plants for placing out in the open ground as soon as the weather will admit.

THE MAGAZINE OF HORTICULTURE.

MARCH, 1847.

ORIGINAL COMMUNICATIONS.

ART. I. *A Leaf from the History of Pomology in the Past.*
By T. S. HUMRICKHOUSE, Coshocton, Ohio.

THERE has always been a proneness, in existing generations of mankind, to attribute all knowledge and all science to themselves; and to regard preceding ages as involved in ignorance and darkness, if not barbarism. The truth of this remark applies to no age more than to the present, to no country more than to our own, and to no subject more than to Pomology. Brother Jonathan must amend,—he must reform,—or he will, if indeed he has not already, become a proverb.

Why should we arrogate so much to ourselves, when a little research would be sure to lead us to the opposite conclusion?

In the history of Pomology from the earliest to the present times, the curious antiquary may find a vast field for his researches; and, in the attempt to explore it, will employ himself fully as usefully as in many of his present undertakings.

Without further preface, I take the liberty of transcribing what follows from the "*Memoirs and Correspondence of John Evelyn*, edited by William Bray, Esq., London, 1827," pages 435 to 437 inclusive, in the hope that, by publishing it, you will confer a favor upon those of your readers who may not have access to the work:—

"In a letter to Mr. Boyle, 23d November, 1664, he," (Evelyn) "says, one Rhea (qu. Ray?) has published a very useful book concerning the Culture of Flowers, but it does nothing reach my long-since attempted design on that intire

subject, with all its ornaments and circumstances, but God only knows when my opportunities will permit me to bring it to maturity."

"In the Preface to the *Acetaria*, published in 1699, he mentions a work in which he had spent upwards of forty years, and his collections for which had, in that time, filled several thousand pages. The author of the *Biographia Britannica* believes that this was the work part of which he had shewed to his friends under the title of '*Elysium Britannicum*,' but which, in that Preface, he calls '*The Plan of a Royal Garden*,' &c.; and that his *Acetaria* and *Gardener's Kalendar*, were parts of it. This is confirmed by the preceding letter to Dr. Boyle.

"Among the MSS. at Wotton, there are parts of two volumes with the running title of '*Elysium Britannicum*,' consisting of miscellaneous observations on a great variety of subjects, but not digested, except a printed sheet of the contents of the intended work as follows:—

ELYSIUM BRITANNICUM,

IN THREE BOOKS.

Præmissis præmittendis, &c.

BOOK I.

"Chap. 1. A Garden derived and defined, with its distinctions and sorts.—2. Of a Gardiner, and how he is to be qualified.—3. Of the Principles and Elements in generall. 4.—Of the Fire.—5. Of the Air and Winds.—6. Of the Water.—7. Of the Earth.—8. Of the Celestial influences, particularly the Sun and Moon, and of the Climates.—9. Of the four Seasons.—10. Of the Mould and Soil of a Garden.—11. Of Composts and Stercoration.—12. Of the Generation of Plants.

BOOK II.

"Chap. 1. Of the instruments belonging to a Gardiner, and their several uses.—2. Of the situation of a Garden, with its extent.—3. Of fencing, enclosing, plotting, and disposing the Ground.—4. Of a Seminary, and of propagating Trees, Plants, and Flowers.—5. Of Knots, Parters, Compartiments, Bordures, and Embossemments.—6. Of Walkes, Terraces, Carpets, and Allees, Bowling greens, Maills, their materials and proportions.—7. Of Groves, Labyrinths, Dædales, Cabinets,

Cradles, Pavilions, Galleries, Close-walkes, and other Relievo's.—8. Of Transplanting.—9. Of Fountaines, Cascades, Rivulets, Piscinas, and Water-works.—10. Of Rocks, Grots, Cryptas, Mounts, Precipices, Porticos, Ventiducts.—11. Of Statues, Columns, Dyals, Perspectives, Pots, Vases, and other ornaments.—12. Of Artificial Echos, Musick, and Hydraulic motions.—13. Of Aviaries, Apiaries, Vivaries, Insects.—14. Of Orangeries, and Conservatories of rare Plants.—15. Of Verdures, Perennial-greens, and perpetuall springs.—16. Of Coronary Gardens, Flowers and rare Plants, how they are to be propagated, govern'd, and improved; together with a Catalogue of the choycest Trees, Shrubs, Plants, and Flowers, and how the Gardiner is to keep his Register.—17. Of the Philosophico-Medical Garden.—18. Of a Vineyard.—19. Of Watering, Pruning, Clipping, Rolling, Weeding, &c.—20. Of the Enemies and Infirmities to which a Garden is obnoxious, together with the remedies.—21. Of the Gardiner's Almanack, or Kalendarium Hortense, directing what he is to do Monethly, and what Flowers are in prime.

Book III.

“Chap. 1. Of Conserving, Properating, Retarding, Multiplying, Transmuting, and altering the Species, Formes and substantial qualities of Flowers, &c.—2. Of Chaplets, Festoons, Flower-pots, Nose-gaies, and Posies.—3. Of the Gardiner's Elaboratory, and of distilling and extracting of Essences, Resuscitation of Plants, with other rare Experiments.—4. Of composing the Hortus Hyemalis, and making books of Natural Arid Plants and Flowers, with other curious ways of preserving them in their Natural.—5. Of planting of Flowers, Flowers enamell'd, in Silk, Wax, and other artificial representations of them.—6. Of Hortulane Entertainments, to shew the riches, beauty, wonder, plenty, delight, and use of a Garden Festival, &c.—7. Of the most famous Gardens in the World, Antient and Moderne.—8. The Description of a Villa.—The Corollerie and Conclusion.”

Surely, this grand conception of Evelyn's—formed by him two hundred years ago, to which he devoted a portion of his leisure during a period of forty years; toward the completion of which he made vast advances, but to which he was

prevented from giving form and substance, by the multiplicity of important affairs in which he was engaged during his whole life-time, has never been realized—no, not even approached, in any work yet given to the public. True: many things in the design would, were it executed, be found more curious than useful, and some even based upon error—such and so great have been the advances made by science since his day—but, are there not many admirable hints contained in the mere statement of his plan, which modern horticulturists would do well to avail themselves of and improve.

January 7, 1847.

ART. II. *Instance of Effect of Boiling Water on Seeds.*

By X.

IT is a well known fact to many, that certain seeds are peculiarly difficult to be made to vegetate by the usual process of sowing. Perhaps much disappointment has been often experienced, from the failure of germination of the seeds of choice and curious plants. Many modes have been suggested or devised to facilitate their germination; some founded on the natural character of the original species; such, for instance, as sowing the seeds of the Primulaceæ, (those which are native of Alpine situations, as the Auricula, Androsace, Soldanella, &c.,) on snow, and exposing them to the open air whenever an opportunity occurred of their receiving a snowy shower; or exposing them to great natural or artificial heat, in places strongly irradiated by the sun's rays; in hotbeds, on flues of conservatories and the like; or subjecting them to scalding heat, by pouring boiling water over them, as in the case of Ipomæa *Quamoclit*; or, again, to the stranger process of absolute boiling for the space of ten or fifteen minutes: also of soaking in alkalies: immersing in acids, (e. g., oxalic acid,) or watering with a weak solution of acid, until the seed vegetates, or with a solution of chlorine, which has the same effect. Doubtless, in some of the instances, a chemical action is sustained between the amylaceous particles of the seed and the acid agent, or some gaseous principle is evolved which had

been lost by drying or age, but in others, as in boiling and scalding, the action seems mysterious. However curious the subject, or inexplicable the mode, yet the pleasant fact remains, and, in lieu of disappointment, by some one of these modes, the careful experimenter is enabled to raise to successful culture, species of plants, the seeds of which he may have had in his possession for years, and been unable to excite to a growth.

In the case of the harder kinds of seeds, those covered with a very tough, or else with a very indurated shell or husk, for instance, the *Acaciæ* and *Mimôsæ*, it does not seem so surprising that the action of extreme heat should be so well sustained. The extremely hard-wooded shell of the Hawthorn seed, (*Cratægus*,) it is well known, enables that plant to resist vegetative influence for one, two or more years: and although, if sown as soon as ripe, many of the seed will appear on the next spring, yet straggling plants may be seen in the seed bed, rising from the original sowing, for successive seasons. So the seeds of the Honey locust (*Gleditschia*) are of the same character in process of vegetation. Subjected to boiling, the seeds of *Acacia lophántha* will sustain no injury when boiled fifteen minutes, as we have repeatedly observed; nay, the young plants seem to grow the more rapidly from seed subjected to that length of the process, than those from seed not so long boiled. Many curious leguminous seeds are almost annually brought from tropical countries, either gathered from wild plants, or sent from botanical collections, which are thrown away by ignorant culturists, into whose hands they may chance to fall, or sown without any reference to these well known facts in vegetable economy, and are thus never destined to see the light. To the *Acacia* and *Mimosa* tribe especially, (of the great natural order *Leguminôsæ*,) our green-houses and collections of living plants are very much indebted for rare elegance of foliage or exquisite beauty of flower, or fragrance of blossom, or general contour of shape; and in some such collections, some one species or variety may be rare.

To increase the chance of possessing some newer or rare kind, it surely would repay the amateur or common gardener for whatever trouble or patience he might exercise to insti-

tute many experiments founded on a little scientific knowledge to cause foreign seeds, which often fall into his hands, to germinate. No one is the loser by such operations: for even failure does not always detract from the general cause of culture; but the rather enables a further experiment to be better made. And patience, as well as experiment, is often found to be an excellent paymaster in the long run: not only, as many have known, in waiting for the blossoming of their rarer plants, but also in the waiting for the germination of their seeds, after months have elapsed since they ordinarily and normally should have appeared above the soil. In our own very humble and private experience, we have known the value of such a virtue connected with floricultural science: and before our eyes, at this moment, are some seedling *Liliaceæ* of rarer kinds, for whose appearance we waited more than a year; although, in the same sowing, were others, for aught we know, as difficult of vegetation, which appeared above the soil in a few weeks.

The most singular feature by far of the power seeds possess of resisting heat by boiling water (to return to our subject matter,) is to be noticed in the fact of seeds not furnished with strong and woody exteriors or shells; and of those of less durable envelopes; of this latter, for instance, the seeds of the Rubi, (Raspberry,) of which Lindley, in his *Theory of Horticulture*, p. 157, tells us that he was acquainted with the germination of some seeds of this fruit "picked from a jar of jam, and which must, therefore, have been exposed to the temperature of 230° , the boiling point of syrup."

Induced, at several times, by these accounts, and similar found elsewhere in works of Horticulture, to institute some experiments on the vitality of seed, we tried to see what success one might have on four several sorts, which we subjected to hot water raised to the boiling point, and kept in that state for ten minutes. Of this lot, was a single seed of a *Gleditschia*, several of *Robinia*, which, however, did not appear above ground. The third kind of seed has escaped our memory, but it did not vegetate: the fourth seed was the *Sida polyandra*, brought several years ago from the Botanical Garden at Calcutta, by a friend of ours, and which we had in our possession ever since, and, failing to vegetate it by

the common process of sowing, in desperation, we put it to the severe test of the water trial, and, to our gratification as well as surprise, several fine plants made their appearance above ground in a few weeks. The *Sidæ* are malvaceous plants, possessing soft seeds, that is to say, seeds with no indurated exterior, and which, one would naturally suppose, could not resist much of an elevation of temperature, especially in boiling water, which, permeating their tissue, might be thought capable of destroying their organization. But notwithstanding appearances seemed so much against them, yet something like a dozen plants came up and grew luxuriantly, of which we saved a couple by potting which have given us a few flowers, pretty as are any of that genus, but of little more ornament than that most common species now rejected from our gardens, viz., *Sida abùtilon*, original from India, but now almost naturalized as a weed in gardens and on rubbish heaps. The entire genus, indeed, may be set down, in the words of Loudon, as "free flowerers of no great beauty;" of which we have certainly a rare exception in *Sida striatum* (*Abùtilon striatum*) of the Catalogues. What *Sida polyándra* will prove in open culture, we can scarcely form any opinion from our present knowledge; if no better than the old and rejected *S. abùtilon*, thus much will it have proved, that, in its case at least, it will add its weight of testimony to the value and importance of a more experimental and scientific process of seed sowing, based on philosophical principles; and that the record of the most seemingly trivial facts in horticultural experience, may lead to results which will bear on the greater interests of the general subject. And so, Mr. Editor, should you deem this rambling and discursive essay of any value in the record of facts relating to a pursuit in which, with yourself, you are aware, we are interested, you are at liberty to insert it in some corner of your Magazine, that, perhaps, it may remind others of similar experiments, from which they may receive even greater reward in more successful results.

January 27, 1847.

We are most happy to present an article so full of interest to every lover of rare plants: and we hope the minuteness

with which these experiments have been detailed will induce all who may have rare seeds placed in their hands to test their vegetative powers. Has our correspondent tried the boiling process on rose seeds, which often require a long period to vegetate, especially if not sown as soon as gathered? We might name other kinds which are found difficult to make grow: but the hints here given are sufficient to induce all lovers of plants to institute experiments.—*Ed.*

ART. III. *Additional Remarks on the Northern Spy Apple.*
By J. H. WATTS, Esq., Rochester, N. Y.

AMONGST the strange things of the day, I find a very strong prejudice existing against the endeavors to introduce the Northern Spy apple;—not that it is not a superior fruit, but that the tree is not a fruitful bearer. Now in a country where fruit is so abundant of other kinds, suppose our Spy trees are not as prolific, does that militate against them entirely? Surely not; and, as I have interested myself much in favor of the fruit, and not so much in the tree, I think it my duty to give you the particulars. You will find them in the copy of a letter which has been furnished me, and which I transcribe for your use:—

“Mr. Oliver C. Chapin, of East Bloomfield, N. Y., says, under date of the 20th January, 1847,—that the first Northern Spy apple trees were raised from seeds brought from the Northwest part of Connecticut, about the year 1800, by Elijah Taylor. The original *tree* was set in an orchard by Herman Chapin, and some sprouts from it were taken up by Roswell Humphrey, and by him the fruit was first raised—(an honor, by the way, equal and more so than that he had commanded—large armies)—as the original *tree* died before bearing.” “I believe there are *nine* of the trees first set out by Humphrey now living, and they are rather larger than the other trees in the orchard will average, of the same age, and treated in all respects the same.” “The trees have a handsome, upright top, are tolerably thrifty, and no indications of

being short-lived." "*They bear well every year*, and a portion of the apples are as good as any that we have, and, under favorable circumstances, will *keep till June*." "I have no means of ascertaining the quantities raised, but should *guess* that four or five hundred bushels were raised annually in the north part of this town, and a few in other places."

"The *only* objection that I know of to them is, that a large proportion of the fruit is small and *scrubby*, and of little value, being more unequal, in size and flavor, than most others."

Mr. Chapin does not say that the apple was called the Northern Spy, in Connecticut. As you have correspondence, no doubt, with growers of fruit in that region, you will do well to learn more about it there, if you can.

You will see that the culture of the fruit has been mostly confined to the region it was first produced in, although it is fast wending its way west, and, generally, more or less all over the United States, as scions have been sent in every direction. Those I have had were raised fourteen miles east of Rochester, and, the season past, a gentleman within two miles of Rochester has raised some ten bushels, said to be very fine. As I am not a grower of fruit to sell, nor of trees, I cannot be said to be prejudiced for that purpose, but I agree with almost every one, that it is the best fruit of the apple kind I have ever seen, and hope to live to see it as plenty as other fruits which are now grown here in such abundance. I trust your patience will not be exhausted. The facts about the Northern Spy are what I have been seeking to find, and they are at your service.

I may have some other suggestions to make to you hereafter.
Rochester, N. Y., January 22, 1847.

ART. IV. *Some Account of the Cooper Apple and its History.*
By T. S. HUMRICKHOUSE.

You request me, Mr. Editor, to send you a drawing, together with the history, &c., of the "Cooper apple." I can furnish you with the history but not the drawing. When I had the opportunity, last fall, from a specimen sent me by Rev. C. Springer, to have made a drawing, I neglected to do

so, for reasons which will appear in what follows, and because I supposed it would undoubtedly be recognized by Mr. Downing, to whom specimens were likewise sent by Mr. Springer, as an old acquaintance. I now regret it, since, had I done so, I could have complied with your request.

The Cooper is, indeed, a most superior apple. If you transcribe in full Mr. Manning's description of the "Drap d'Or," (as I hope you will do in a note to this,) and add to it, as Mr. Kenrick has done, that its season extends through November, you will have a complete description of the Cooper. Indeed, I believe them to be identical, though the one specimen sent me by Mr. Springer was not enough to enable me to come to that as a settled conclusion. Nor would I hastily, in any case, pronounce upon the identity of fruits.

The Cooper apple, like the Putnam,—should I not rather say Roxbury Russet,—was brought from New England by the emigrants who settled the "Ohio Company's Purchase," and founded Marietta, in company with the Rhode Island Greening and other sorts. It is contained in the original list of the varieties so brought out, now in the possession of William Rufus Putnam, as appears by the statement of Mr. Bateham, Editor of the *Ohio Cultivator*, in an article published in the number of his paper of the date of 1st. August, 1846, and which, on Mr. Bateham's authority, I take to be undoubtedly genuine. As that list is valuable for reference, and will be better preserved for that purpose in your Magazine, I have thought proper to subjoin it.

"List of Apple Grafts received from Connecticut in 1796 :—

- | | |
|---------------------------|--------------------------|
| 1. Putnam Russet, | 13. Striped Sweeting, |
| 2. Seek-no-Further, | 14. Honey Greening, |
| 3. Early Chandler, | 15. Kent Pippin, |
| 4. Late Chandler, | 16. COOPER APPLE, |
| 5. Gilliflower (red), | |
| 6. Pound Royal, | 17. Striped Gilliflower, |
| 7. Natural (Seedling,) | 18. Black Gilliflower, |
| 8. Rhode Island Greening, | 19. Prolific Beauty, |
| 9. Yellow Greening, | 20. Queening, |
| 10. Golden Pippin, | 21. English Pearmain, |
| 11. Long Island Pippin, | 22. Green Pippin, |
| 12. Tallman's Sweeting, | 23. Spitzenberg. |

Having received, some time since, a letter from Mr. Springer, informing me of his communication to Mr. Downing, touching the Cooper, and some others of our varieties, I immediately wrote to him, referring him to the foregoing list in proof that it is not an Ohio fruit. I also, about the same time, mentioned the same fact to the Hon. James Matthews, another of Mr. Downing's correspondents. And I requested both of them, that, in writing again to Mr. Downing, they should call his attention to it, and obtain from him his opinion, as he had seen the fruit, if it is not the "Fall Harvey," the "Dyer," or the "Drap d'Or." This they will doubtless do.

I have already stated my opinion that the Cooper apple is the "Drap d'Or" of Coxe, but by no means affirming such to be the case.

Coshocton, January 27, 1847.

We trust our friends and correspondents in the West will not suppose we wish to detract in the least from the merit which attaches to their fertile soil, in the production of new seedling fruits, in endeavoring to show that many of those which are supposed natives, are only well known eastern kinds which were carried into their region by the early settlers of the country from New England. There are undoubtedly hundreds of seedling apples of great excellence now in existence in their nurseries and orchards, and we soon expect to see great additions to our catalogues, especially from Ohio; but as several supposed native fruits have proved not to be so, it may be well to proceed cautiously in identifying many of the kinds which are yearly brought into notice, that confusion may not grow out of hasty conclusions. Our excellent correspondent, Mr. Ernst, whose exertions have been so signally important in detecting native seedlings, and bringing them to the notice of cultivators, thought we were hasty in our remarks when we stated that the "Detroit, Putnam russet and other apples had proved to be Eastern varieties;" but we believe now, that even some of those whose *dictum* was supposed to be authority, admit what we showed to be the fact, (Vol. XII., p. 141,) that the Putnam Russet and Roxbury Russet are identical.

After seeing the notice of the Cooper apple in the *Ohio Cultivator*, we requested Mr. Humrickhouse, on whose good judgment we could rely, to inquire into the history of that variety, and, if possible, to send us an engraving, and, as the result of his inquiry, we are enabled to offer the above excellent paper, which every cultivator, we are sure, will join with us in saying, has an important bearing on the question of the seedling origin of the Cooper apple. Mr. Humrickhouse has shown that it was originally carried from Connecticut; but as we believe there is no apple known under the name of Cooper in Eastern collections, it is very reasonable to conjecture that it may be known under some other name. For the present, we shall only add Mr. Manning's description of the Drap d'Or, alluded to by our correspondent, and leave the subject to be taken up again when we have an opportunity to examine the fruit.

DRAP D'OR.—A large, flat apple, of a bright, but pale yellow color, covered all over with small black pips (never with a red check); the flesh is tender, very light and pleasant; the growth of the tree is large and spreading; it bears well, and should be found in every good collection. Ripe in September and October. This is the true Drap d'Or of *Coxe* and *Ronald*, but not of *Duhamel*.—*Manning's Book of Fruits*, p. 48.

ART. V. *Notice of some New Seedling Fruits of the West, with a Description and Engraving of the American White Winter Calville Apple.* By A. FAHNESTOCK, Lancaster, Ohio. •

I HAVE some choice native apples of great merit, amongst which are the Early Pennock, *American White Winter Calville*, *Crimson Nonpareil*, *Belle de Witt*, *Hart's Orange Sweeting*, *Red Pearmain*, *Baldhill*, *Early Summer Red Streak*, *Hocking Seedling*, *Hooker*, *Large Late*, *Large Vandevere* and *Zoar Large Green*, &c. These apples are not in any nursery that I know of, except one, in Ohio, besides my own. I have also a new Nectarine raised by Mr. Baker, supposed to have come from the seed of a peach; it has fruited but once, and is very fine, also some new plums and pears, peaches, &c.

It would fill up too much of a letter to describe and name them all, requiring some three or four sheets at least. I think them all an acquisition to any nursery, and will send you grafts this spring, or young trees in the fall, if you desire, of every kind that is new and valuable. I will give you the outline of two of the apples, with descriptions taken from the fruit, which is correct and warranted.

Early Pennock.—It is the largest and handsomest apple of its season I have ever seen, ripening from the 1st to the 10th of August; a good eating fruit, and first-rate for cooking. [Having already, by the kindness of Mr. Humrickhouse, given an engraving of this fine variety, (XII., p. 472,) we omit it here.—*Ed.*]

American White Winter Calville.—This apple (*fig. 13*.) was propagated by taking sprouts from a seedling tree in the

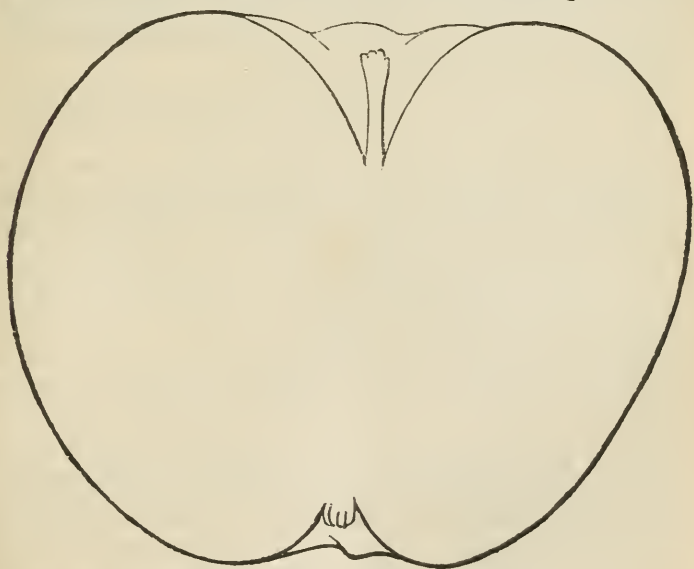


Fig. 13. American White Winter Calville.

orchard of Mr. Dan'l Miller, of La Fayette township, Coshoc-ton County, Ohio. The size is large, sometimes equalling that of the largest yellow Belleflower, to which it bears some resemblance, as it also does to the "Belmont or Waxen or Gate," sometimes flat, mostly round or oblong, tapering somewhat to the eye, with broad ribs; skin thin, delicate, of a

waxen and glossy appearance, pale straw color, without a blush; seeds plump and oval; stem from half to three quarters of an inch long, small, and set in a deep pointed and ribbed cavity. Calyx small and closed; in a moderate sized basin, shallower at one end than the other: flesh white, tender, juicy and fine grained, possessing a delicate aroma; and although it comes into eating early in November, it will keep till March or even April, retaining its flavor well. The tree is a fine, strong and upright grower in the nursery, foliage peculiar, of a bright rich green, and very glossy.

Hart's Orange Sweeting is also *very fine*.

Red Pearmain is a very large, oblong fruit, handsomely striped with red, and *exceedingly* fine for eating at this season—a very superior fruit.

The *Zoar Large Green* is a seedling from Zoar, and is a very fine winter fruit, keeping till April. I have seen them weighing one pound. They are brighter than the Rhode Island Greening, and a much larger fruit.

The *Zoar Beauty* and *Flat Pear* are also seedlings of Zoar, and well worthy of a place in every orchard.

Bimeless Seedling Plum (the superintendent at Zoar) is in size between the Green Gage and Imperial Gage, an uncommon bearer and superior fruit in flavor. The original tree, now about eighteen years old, stands in front of his mansion house, and *bears plentifully every year*, and has *never* been injured in the least by the *curculio*.

Silvan's Yellow Gage, a seedling of the same place, named after their nurseryman, (Mr. Silvan,) is a plum of superior merit.

Beauty of Zoar Peach, *Silvan's Seedling*, and *Zoar Late Yellow*, are seedling Peaches from Zoar, also *Smoothstone*. The first and last named I have seen in bearing. They are handsome and good.

Winesburgh Large Yellow is a very large and fine peach, a seedling from Winesburgh in Holmes County, and very excellent.

Graven's Red Cheek Cling is a seedling of the same county, bore this season. It is a large and handsome fruit, very desirable.

Beltzar and *Beltzar's Early Rareripe* originated in Coshoc-

ton County, are fine early varieties; ripening from 1st to 10th of August.

Fahnestock's Seedling No. 1, and *Fahnestock's Mammoth Yellow Cling*, two seedlings of my own.—I consider them superior, and they shall speak for themselves. The seedling is much larger than the cling: one I had from the tree would not go into a teacup, and measured larger in circumference than any peach I have ever heard of. We have some other fine seedling peaches. Also a plum called the *Imhoof Gage*, raised from a seed of the Green gage: it is rather oblong, and nearly as large again as the Green gage, possessing all its qualities. I would describe more to you, but space will not allow.

There is a decided improvement in the taste of the people here, and particularly in Columbus and Chillicothe. Our agricultural paper has done much, and will do more, for the advancement of the interest of all nurserymen and horticulturists.

Lancaster, Ohio, January, 1847.

We are happy to give so good an account of the progress of Horticulture in the West, and particularly of the production of such a number of fine varieties of fruit. The Early Pennock seems to be a most valuable *early* apple, and, from its size and beauty, as well as excellence, worthy a place in every collection. But, in regard to the other variety, described by Mr. Fahnestock as the American White Winter Calville, it may seem somewhat presumptive in us to ask why it is called the *American*. If we compare the description of the White Winter Calville, of Manning or Lindley, we shall find that it answers almost precisely to that given above by our correspondent. It is an old French variety of much merit, and may have found its way into Ohio, from some of the early French settlements in the West. Though we would, by no means, pronounce upon a variety, merely upon a description, still we should wish to have good evidence that it is a seedling before calling it the American White Winter Calville: for it is possible that one description may answer to two apples, though it is not very probable. At any rate, we trust Mr. Fahnestock will send us a tree or some scions, that we may compare the leaf and wood as well as the fruit.

We shall be glad to receive any descriptions or notices of new fruits which our correspondent may find the opportunity to send us.—*Ed.*

ART. VI. *Pomological Notices : or Notices respecting new and superior fruits, worthy of general cultivation.* Notices of several new apples, peaches and grapes. By the EDITOR.

APPLES. In our last volume (XII. p. 474,) we briefly described several new apples, which have been lately introduced to cultivation; since that period, however, a few other new sorts have been recommended to us by our correspondents, a few of which we now name :—

Hooker.—This is a very fine apple, of which the following account has been sent us by our friend J. W. Bissell, of Rochester, N. Y. “The original tree is growing on the farm of the grandfather of my partner, in Windsor, Conn., and was brought to this country by E. B. Strong. The tree grows strongly and bears a great crop, each alternate year : season, December to April. You will notice that the flavor is much like the Seek-no-further, which makes it a very great favorite with women and children; yet, unlike the Seek-no-further, it is first-rate for cooking; the skin is very thick and preserves the fruit well. It is of medium size, with a red skin, and high flavored.”

Hawley.—This is another new apple, not known in the nurseries, but, according to our correspondent, E. W. Leavenworth, Esq., of Syracuse, N. Y., of undoubted merit. He writes us that “it is superior to any apple of the month of October for the table. It has been cultivated by two uncles of mine, in Columbia and Cayuga, for 20 or 30 years past,—one calling it the Hawley, the other, Dows, apple. It is large—as large as the Baldwin—fair, green, becoming partly yellow, tender, juicy and delicious. Hawley and Dows are the names of the men from whom the scions were originally obtained.

Melvin Sweet.—This is the name of a variety considerably

cultivated in Concord, Mass. Our friend Mr. Moore, who sent us some excellent specimens, informs us that it originated in that town, that it is a great bearer, and readily brings 75 cents to \$1 a barrel more than the Baldwin. It is an apple of good size, roundish form, with a yellowish green skin, distinctly striped with pale red, and possessing a rich and sugary juice. In eating from November to February.

Granny Earle.—First introduced to notice by E. Phinney, Esq., of Lexington. It is a small apple, of roundish oval form, green skin, striped and splashed with red, with a white, crisp and tender flesh, abundant juice, and high flavored. Ripening from November to January.

Winter Harvey.—A very large conical apple, slightly ribbed, a native of Maine; skin clear pale yellow: stem very short: flesh, yellowish, firm and tender, juicy and excellent. Ripe in December and keeps till April. Several barrels have been sent to Boston market annually for the last three or four years, and they retail as rapidly as any other kind. Some specimens exhibited March 29, 1845, before the Massachusetts Horticultural Society, were in fine preservation.

The President is the name of a new variety highly recommended by some of our friends in western New York, where the variety is cultivated. We are promised a full account of it ere long.

Leland Pippin.—This is the name of a variety cultivated in the vicinity of Sherburne, Mass., and takes its name, we believe, from our old friend Deacon Leland, of the Sherburne nursery, who first introduced it to notice. It comes in after the Porter, and is said to be fully equal to that fine variety.

PEACHES. The rapidity with which seedling peaches are produced, would lead us to suppose that a greater number of fine varieties might have been raised. But, with few exceptions, the list of fine new ones is exceedingly limited, and but a small number of them equal such foreign kinds as the Noblesse, Grosse Mignonne, Malta, &c. Recently, there has been a greater interest manifested in the production of seedlings, and we may hope soon to see some additions of greater value than many which now fill up the catalogues. The following are new and promise well:—

Stetson's Seedling.—A variety of great beauty and excellence, with a white skin, beautifully suffused with pale blush : of rather oval form, terminating in a distinct mamelon at the apex : flesh very juicy, melting and delicious. Ripens early in September. Raised by N. Stetson, Esq., of Bridgewater.

Hovey's Cambridge Belle.—One of the most beautiful peaches we have ever seen, with a clear waxen skin, tinted with a glowing blush on the exposed side, and of a rich, brisk and delicious flavor. Ripens early in September. Specimens were exhibited before the Massachusetts Horticultural Society in September last, and the Committee stated it to be "of good flavor, and worthy of cultivation."

White Ball.—This is an early variety, very beautiful and excellent, a constant bearer, of good size and high flavored. An accidental seedling in our collection. It is superior to Morris's White, though not quite so large. Ripens early in September.

GRAPES. Some very superior varieties have lately been added to our rather limited list of good grapes : a few of which have been fruited here, and others recommended by Mr. Thompson, of the London Horticultural Society. The cultivation of the grape is rapidly extending, and, as amateurs are anxious to make a trial of all that have obtained a good reputation, we embrace an early opportunity to briefly note the characters of some of the recently introduced varieties which promise well. Another season we shall be enabled to describe more particularly such as have not yet fruited, in this country, from vines in our own collection which will bear the present year.

Muscat Blanc Hatif.—A new and superior Muscat grape, very early, ripening just after the Chasselas ; with good sized, handsomely shouldered, bunches, and round berries of a clear amber color, full of a rich muscat juice. The berries set well, and appear perfectly free from shanking, a defect of the White Frontignan, which we noticed in vines planted nearly side by side and in the same border. It is a most valuable grape. Mr. Buist informs us he received the variety from the south of France, about five years ago. The Pennsylvanian Horticultural Society awarded him a handsome prize for fine specimens. A few clusters exhibited by us last autumn were highly esteemed.

New Black Hamburg, (No. 16.)—When in London in the autumn of 1844, we made several visits to the extensive establishment of Mr. Wilmot, of Isleworth, well known for his superior cultivation of the grape, for Covent Garden market. Among the grapes which he recommended to us, as the very best in his collection, was one which he designated as the New Black Hamburg, (No. 16,) to prevent confusion with Wilmot's New Black Hamburg. The variety, we believe, did not originate with him, but, from its superior excellence, was adopted, as one among a select list which he had found the most profitable for cultivation. Mr. Allen has briefly noticed it at p. 44, after having fruited it in his collection, and has spoken in just terms of its value. It is very similar in appearance to the Black Hamburg, but the foliage is quite distinct, and the flavor is even more brisk and vinous than that variety. It should be in every collection.

Macready's Early White.—This is the name under which we have cultivated a very early and fine variety, received from Mr. Rivers, near London. We have never seen the name, in the catalogue, of any other nurseryman, and of its origin we have no knowledge. It is a white grape, with oval transparent berries, medium-sized bunches, and a remarkably sweet and delicious juice. It ripened the earliest in our collection last season, and hangs for some time.

Prince Albert.—This is the name of a new and fine grape, which we saw in great perfection at the Royal Gardens, at Frogmore, under the charge of Mr. Ingram, the Queen's Gardener; and a brief notice of it will be found in our account of that place (XII. p. 81). There were only two vines in the house, but each of these had three or four bunches of superb grapes, although the vines had been only eighteen months planted. Previous to this, Mr. Wilmot had also recommended the variety, but he had no young plants to dispose of: a variety of such fine appearance, with bunches weighing about 3lbs., we were anxious to possess; and Mr. Ingram kindly promised us some of the cuttings; last season, we had the pleasure of receiving them safely, and in good condition, and now have a few vines which we hope are sufficiently strong to ripen a few clusters of the fruit. The variety originated, we believe, in Jersey. Its general appearance is similar to the Black Hamburg.

Josling's St. Alban's.—This is a new seedling grape, described by Mr. Thompson, in the last number of the *Journal* of the London Horticultural Society. It was raised by Mr. Josling, seedsman, &c., St. Albans, about six years ago. The last season, fruit of it was exhibited before the London Horticultural Society, September 1, and a certificate of merit was awarded. The bunch, supported by a strong footstalk, is very long and tapering, with strong diverging shoulders. The berries are about the size of the White Frontignan, round, greenish white, acquiring a tinge of yellow, when well ripened. Flesh rather firmer than that of the Frontignan grapes, but not so firm as that of the Muscat of Alexandria, very rich and sugary, with a Frontignan flavor. The leaves in their general outline are tolerably round, their lobes not deep, but the serratures are tolerably sharp; both the upper and under surfaces are remarkably glabrous, and slightly tinged with red. On the whole, the leaves bear considerable resemblance to that of the White Muscat of Alexandria; the berries, however, differ in being decidedly round, like those of the Frontignans; but the leaves of the latter are not glabrous, being furnished with bristly hair, at and near the axils of the veins beneath. It is perfectly distinct from any other variety known. Mr. Josling states, that about six years ago he sowed seeds of several kinds of grapes, which had been disfigured by wasps, among which were the White Muscat, White Nice, White Muscadine, and White Sweetwater. The seeds were gathered promiscuously, but he thinks it is between the White Muscat and White Nice, as they grew side by side. It differs most distinctly from the White Frontignan, from the time of showing the fruit, until, and when, ripe. In showing its fruit, the branches are very long on amazingly stout footstalks, which start diagonally from the vine, in a manner very different from any I grow. At this stage, they are very conspicuous throughout the house. After this the berries assume a dark green color, the Frontignan is of a pale green; it shoulders, the Frontignan does not; the bunch tapers to a point, the Frontignan is more cylindrical; the footstalk throughout the bunch is very stiff, the Frontignan hangs loosely. In flavor, it approaches the Frontignan more than any other grape; but even in this respect it differs materially, the berry in the mouth

having more substance, and being more sugary and sweetmeat like ; when ripe, it assumes a dark gold color. It does not require much thinning. It is late in ripening, and does not shank or shrivel, like the Frontignan. Its habit of growth is strong and robust. Mr. Thompson concurs in the opinion that it is a valuable variety.

[This description answers exceedingly well for the Muscat blanc hatif.]

Calabrian Raisin.—In the 2d No. of the *Journal* of the Horticultural Society, Mr. Thompson describes a variety under this name, which had fruited in the Society's garden. He states that it was obtained from the nursery of the Messrs. Baumann of Bolwiller, who have a fine collection of grapes. In their catalogue, it is called the Raisin de Calabre. The bunch is large, slightly shouldered, long and tapering. The berries are large, quite round, white, transparent, so that the seeds can be perceived. The flesh is moderately firm, with a rich sugary juice. It is a late grape, possessing likewise the property of hanging long after it is ripe ; and it will keep for a considerable time after it is cut. With good management, it may be preserved for months, in a fresh state, fit for the dessert. The vine grows vigorously, and is likely to be a good bearer. From what has already been observed of its disposition to form large bunches, those who make the production of them a principal object, will doubtless grow bunches of this variety half a yard or more in length, as has been done in the case of the Black St. Peters, comparatively with which, grown under similar circumstances, the Calabrian Raisin appears the larger of the two.

On account of its long keeping, it is exceedingly suitable for being planted with the Black St. Peters, which is the best, often hanging till February. But a variety that would keep equally long, and afford a contrast as regards color, was wanted. This desideratum is admirably supplied by the introduction of the Calabrian Raisin. Mr. Thompson states that it seems perfectly distinct from any hitherto cultivated or described. The berries of the White Nice are smaller, and of a greenish color : those of the Syrian are a little oval, and less transparent. Its greatest resemblance is to the White Malvasia, but this is a rather early grape, and of smaller size. It will prove a valuable acquisition.

ARR. VII. *Remarks and General Hints, on Some Few Varieties of the Pear.* By S. WALKER, Roxbury, Mass.

MUCH has been written, and much more said, on the merits and cultivation of the pear, and still, Mr. Editor, we want that light and information which experience alone can give us on this subject.

We do not expect to add much, if any thing, to the stock of information already acquired; but, if any remarks which may fall from our pen, or our lips, on this subject, shall elicit remarks from others, either to establish our own views, or to present to the fruit-growing community *the best* mode, or a better mode, of cultivating this delicious fruit, and the varieties that deserved the most extensive cultivation, we shall then consider that something further has been done; but, until we find others, and many there are, more competent than ourself to take up this interesting subject, we shall probably, at times, presume to trespass on your kind indulgence, and solicit a place for such remarks as opportunity may present, or our poor ability may enable us to furnish.

Although specimens of some of the *new varieties* were presented, during the past season, (1846,) at the Hall of the Massachusetts Horticultural Society, yet nothing of surpassing excellence was brought forward in the *new class*; that is to say, the new pears which were shown, for the *first time*, did not fully sustain their foreign reputation, while others which have been shown for several years, and among these we found several *native* varieties, rather exceeded their representation and our expectations. We shall mention those new varieties only that we consider as worthy, in every respect, of extensive cultivation. But, before we proceed to do so, we wish to state briefly that the first, second, or indeed the third, and sometimes the fourth trial of *new* foreign or native pears is oftentimes insufficient to enable us to give an unequivocal and decided opinion as to their true character and merits. We ground our remarks, and form our opinion, from specimens presented at the Hall of the Massachusetts Horticultural So-

ciety, or fruit produced in our own grounds, or sent to us by kind friends during the past season.

Again, we wish it to be fully understood that no estimate can be made of the *true character* of any fruit, more particularly of the pear, unless the specimens are fair, well grown, of full size and quite ripe : or, in other words, in the highest state of perfection the variety will attain to under the most skilful management and favorable season. Some varieties, under the care of a lover of fruits, well cultivated in a congenial soil, may be compared to "refined gold," while the same variety in unskilful hands, the trees neglected, in grass land, or in wet and impoverished soil, may prove as "dross." I would further, and in conclusion on this part of my subject, remark, that first-rate specimens, of the best flavor, cannot be expected to be obtained from trees that are overloaded with fruit. An overcrop is not only injurious to the fruit, but also to the growth and future well-being of the tree. Nature makes great efforts to accomplish her purposes; but if all her energy and resources are called upon to mature fruit, the trees cannot increase in size, and nature thus taxed becomes exhausted—tires—faints and dies under the load.

With the foregoing remarks, which we thought might not be altogether unacceptable to your readers, we proceed to give a list of such new varieties of pears as have, in our opinion, been found worthy to be classed among those deserving of extensive cultivation.

VAN MONS LEON LE CLERC.—One of the best pears we ever ate, and *the* best pear we tasted the past season.

EYEWOOD.—With this variety, after a trial of three years, we were agreeably disappointed. The first year we marked it second-rate. The past season, it proved to be very tender, very melting and juicy, subacid, too much so for persons who like sweet pears, but to the lovers of the Brown Beurré, and Beurré d' Aremberg, this variety will be highly prized.

FONDANTE D'AUTOMNE.—This pear, when well grown and fully ripe, has no superior, and very few equals.

HANNAS and WILBUR.—(The latter native). These varieties may be classed among the best of the season; they were both ripe on the 20th of September.

DIX. (Native.) This variety may be placed among the very best pears in the country. At some future period the Dix will be as well known, and as much esteemed, as the Williams's Bon Chrétien (*Bartlett*).

DEARBORN'S SEEDLING. (Native.) Fruit small, but very fine flavor.

HEATHCOTE. (Native.) This variety may be placed among the best. The present season, we found it little, if at all, inferior to the Saint Michael, (*Doyenné blanc*.)

ANDREWS. (Native.) A pear of great merit; it will be extensively cultivated as it becomes better known.

TYSON. (Native.) Though last on my memorandum, not least in my estimation. This fine variety originated at Jenkinstown, near Philadelphia, some fifty years ago, and although it may be classed among the best, it did not find its way into the State of Massachusetts until the year 1835, or 1836; when scions were sent by Dr. James Mease, of Philadelphia, to the Hon. B. V. French, of Braintree, with an assurance that the Tyson would prove equal to the Seckel. Mr. French gave a part of the scions to various cultivators, and, among the recipients, was William Oliver, Esq., of Dorchester, who grafted the scions received into the leading branch of a fine healthy tree. In the year 1841 or 1842, and, for some two or three succeeding years, Mr. Oliver presented specimens of the Tyson pear at the rooms of the Massachusetts Horticultural Society. We were present and partook of the first specimen that Mr. Oliver presented; and have continued to notice the pear, from year to year, until the past season. We now rank it, as we have ever done, among the best summer pears.

Roxbury, February 11th, 1847.

ART. VIII. *George the IVth Peach.* By W. R. PRINCE,
Flushing, L. I.

I HAVE been anxious, for several years past, to solve the mystery which has hung over this fruit, and at the same time

to present such facts and proofs as would satisfy others. In this research, I have received the most important aid from a gentleman of great intelligence, but who is, at the same time, one of the least assuming votaries of Pomona, John W. Knevels, Esq., of Fishkill. I received intimation long since that the tree in the garden of the late Robert Gill, Esq., in Broad Street, New York, whence the scions of the so-called George the IVth were obtained, was an *inoculated* tree; but it is only within about three years, that I have ascertained satisfactorily that the tree was obtained from my father, under another title. I am now enabled to state these facts positively, and to refer to unquestionable authority for proof on these two important points. Dr. James S. Rumsey, a great connoisseur of fruits, who resides at Fishkill Landing, is a step-son of the late Robert Gill, Esq., already referred to, and who, at the latter part of his life, removed from Broad Street, New York, to Fishkill Landing. The lady of the late Mr. Gill, who is the mother of Dr. Rumsey, now resides with him, and is in perfect possession of all her faculties. Mr. Knevels, in his letter to me, states thus: "From them I have often heard it asserted that the peach named and noticed by Mr. Floy, as the George the IVth, was obtained, as is in fact well known." (This Mr. Floy himself states.) "The tree grew in their court yard, in Broad Street, and was one of several trees received by Mr. Robert Gill, at one time, under an order sent to your nursery, for so many trees of the Red Rareripec; of this there can be no question."—In reply to an application made by me (Mr. Knevels) at your instance to Dr. Rumsey, he says: "The fact of the original George the IVth peach tree having been procured from Mr. Prince, as the Red Rare-ripec, I have often mentioned to you and others interested in such matters."

Such is the information obtained from other sources; I will now speak for myself. In the spring of 1843, I planted a tree of our ordinary Red Rareripec, (which is called "Morris Red Rareripec," by Mr. Downing,) and a tree of the George IVth side by side, and they have both borne fruit for three seasons; and, on a critical comparison of growth, foliage, glands, flowers, and fruit, I cannot perceive the least particle of distinction. *I therefore pronounce them to be identically the same,*

and to be the original and ancient Red Rareripe, brought to Flushing by the Huguenot emigrants at the Revocation of the edict of Nantes, together with the Pomme d'Api apple, St. Michael, and Summer Bon Chrétien pears, and some other fine fruits, all of which were extensively cultivated in the nursery and orchards of my grandfather, and have continued to be so in numerous orchards and gardens up to the present period. The Red Rareripe peach has been propagated to a greater extent in our nurseries than any other variety, and disseminated to every part of the Union. It acquired its cognomen of "Morris," from being extensively cultivated in the orchards of Gouverneur Morris, and his relatives, at Morristania, a few miles from the city of New York.

The genuine original Red Rareripe, or George IVth, has *globose glands*. The Red Rareripe of Mr. Downing, No. 41 of his work on fruits, is a distinct variety, and has serrated leaves, *without glands*.

I shall send you the results of other investigations connected with the history, nomenclature, and synonymy of the varieties of the peach from time to time; and in order to be perfectly *au fait* on the subject, I have concentrated in my specimen grounds every variety of note, obtainable from France, Italy, England, and our own country, and have even obtained specimen trees of all the principal nursery and orchard collections throughout the Union, for the purpose of perfecting the synonymy of this estimable class of fruits. On investigation, I reject every inferior variety, and the collection now offered, with the additional highly estimable varieties, which I shall announce in our catalogue for the ensuing autumn, comprise fruits of most admirable qualities, whose introduction will form a new era in the peach culture.

Linneæan Bot. Gard. and Nurseries, Flushing, L. I. Feb. 1847.

ART. IX. *Hydrangea Japonica, its Cultivation, with an Engraving of the Plant.* By the EDITOR.

SINCE the earliest expeditions which have been sent out from Europe, in search of the Botanical or Floricultural

treasures of other countries, few, if any, have achieved greater results than that of Dr. Siebold, to Japan. For several years the choicest new plants which have, from time to time, been introduced to notice, have formed part of the gems which enriched his magnificent collection.

The Japan Lilies are perhaps the best known, as they are certainly the most gorgeous of his acquisitions. *Hydrangea japonica*, (*fig. 14*) the subject of our notice, though of less pretensions, is another fine plant; and we have just seen announced a most beautiful hardy spiræa, with flowers as white as snow and as double as the ranunculus, clothing the stems their entire length, which was brought home by this indefatigable traveller.

Hydrangea japonica, when it first flowered, was thought to possess less beauty than the old and familiar *H. hortensis*;



Fig. 14. Hydrangea Japonica.

but the plants were young, and only produced inferior flowers; since the specimens have become older, and been grown with a view to show its elegance, it is acknowledged to far surpass the *hortensis*. A specimen from the garden of the London Horticultural Society was exhibited in 1845, from which our drawing is copied, and greatly admired; but, the last season,

it was still more brilliant, having, at one time, upwards of twenty heads of its showy flowers expanded at once.

In habit of growth, it much resembles the *horténsis*; but it makes longer and rather more slender branches, longer jointed, with larger leaves, deeply serrated, and adhering longer to the branches. The flowers are produced at the ends of the shoots; but, instead of being in globular heads, they appear in flat clusters or cymes, the sterile flowers occupying an outer row, while the fertile ones fill up the centre, contrasting prettily, by their bluish tint, with the white flowers of the circumference. Its broad and deep green foliage, and its numerous corymbs of blossoms, render it one of the most conspicuous and beautiful objects of the conservatory.

In a previous volume, (III. p. 63,) we have given the mode of treatment of the *Hydránga horténsis*: *H. japónica* requires similar management. It should be potted in a compost of peat and leaf mould, with very little loam, and, when in a flowering state, placed in a half shady situation, and be liberally supplied with water. Our plants, which are yet rather small, in consequence of cutting them for propagation, have received the same care as the common species, and both have been placed in a frame or under the stage of the green-house, until they commenced growing towards spring.

It is readily propagated from cuttings or layers, which, if put in about April or May, in a slight heat, under good treatment, form fine blooming plants the second year: when about six inches high, they should be repotted; and if the plants are very vigorous, they may be shifted into pots 6 or 8 inches in diameter. The second spring, when they commence growing, they should be top-dressed, and in May, if growing rapidly, they may be potted into the next size; stake up the shoots carefully, and in June it will commence flowering, and continue in great beauty for several weeks. Every amateur collection should possess a plant of the *H. japónica*.

It is of recent introduction to English collections, and first flowered, we believe, in the Horticultural Society's garden. In Belgium, it is common in most collections of plants.

REVIEWS.

ART. I. *European Agriculture and Rural Economy, from Personal Observation.* By HENRY COLMAN. Vol. II. Part VIII. pp. 223 to 370.

MR. COLMAN has now thoroughly taken hold of the subject, and the present number possesses a value which could not attach to any of the preceding ones. The subjects discussed are few, but they are important and valuable to all. They are as follows :—

CVI. Crops (continued,) CVII. Flax; CVIII. Live Stock; CIX. Dairy Husbandry; CX. Manures; CXI. General Reflections.

These subjects are treated upon with that minuteness of detail, which alone can make them useful to any farmer. Actual experiments are recorded, and results given. Under the head of crops, are enumerated all the improved varieties of wheat, &c., and, in the chapter on live stock, the best breeds are described, and a comparison of their value added. The number is illustrated with a fine drawing of a Leicester ram.

In the chapter on manures, which we wish we had room to copy, Mr. Colman adds the following to what he has previously stated on Guano :—

Guano still maintains its reputation. No new facts have transpired respecting it, but old ones have been confirmed. It continues to be applied, at the rate of two hundred pounds, and even four hundred pounds weight per acre, to various crops, with signal success, unless its efficacy is suspended or defeated by drought, or unless it comes in immediate contact with the plant, when it proves fatal. It is never safely applied alone, and the preferred mixture is a very liberal proportion of mould. Its mixture with ashes, strongly recommended by some farmers, is, as I have before observed, of questionable expediency. In Devonshire, I witnessed the most extraordinary effects from it, this year, applied at the rate of about three hundred pounds per acre upon grass land. The extreme luxuriance and richness of the grass, where it was applied, were most remarkable, especially when seen in contrast with parts of the field not guanoed. Nor is its efficacy limited to one year, but continues for a length of time as yet not determined.

But were its obvious effects limited to one year only, yet the increase of crops, growing out of its use, furnishes in itself the means of greatly enriching the farm. (pp. 358, 359.)

This is just what we predicted of the value of guano as tested by our own experience : the general cry was, and even now is, that its effects are only immediate, "leaving the land poorer than before," as some farmers have affirmed ; but Mr. Colman now confirms all that has been said of it ; and we trust that we shall no longer have so groundless an argument brought up against its use. Two more numbers, we believe, complete the work.

ART. II. 1. *The Young Gardener's Assistant, in three parts, containing catalogues of Garden and Flower Seed, with practical directions, under each head, for the cultivation of Culinary Vegetables and Flowers ; also, directions for cultivating Fruit Trees, the Grape Vine, &c.* 12th Edition, By THOMAS BRIDGMAN, 1 vol. 8vo. New York, 1847.

2. *The Florist's Guide, containing practical directions for the cultivation of annual, biennial and perennial Flowering Plants, &c.* 1 vol. 12mo. pp. 174.

3. *The Fruit Cultivator's Manual, containing ample directions for the cultivation of the most important Fruits, &c.* 1 vol. 12mo. pp. 189.

4. *The Kitchen Gardener's Instructor, containing a catalogue of Garden and Herb Seed, with practical directions, under each head, for the cultivation of culinary Vegetables, Herbs, &c.* 1 vol. 12mo. pp. 181. New and improved Editions. 1847.

THESE are the titles of four books which the author has placed in our hands, the first containing the same information as the other three, but which are sold separately to those who only wish to acquire knowledge in one department. It is scarcely necessary for us to add any thing to what we have said in their favor in our reviews of former editions : the best evidence of their value is the fact, that the public have called

for the 12th edition. This we are glad to add, however, has been greatly improved, and new lists of flowers, fruits, and vegetables added, to bring them down to the latest date. Mr. Bridgman is indefatigable in his exertions in the cause of Horticulture; and it is gratifying to us to have an opportunity to commend the plain common sense, and practical work of the author, to all cultivators, and especially to those who wish for elementary information in the several departments of the gardening art.

ART. III. *Experimental Researches on the Food of Animals, and the Fattening of Cattle, with Remarks on the Food of Man, based upon experiments undertaken by order of the British Government.* By ROBERT DUNDAS THOMPSON, M. D., Lecturer in Practical Chemistry, University of Glasgow. From the last London edition. 1 vol. 12mo. pp. 172. New York. 1846.

THIS is the title of a very useful work, which should be in the hands of every individual interested in the breeding of stock, and, indeed, we might say, in the hands of every one desirous of obtaining a physiological and chemical knowledge of animal diet. It is the result of an extensive series of experiments undertaken at the instance of the British Government, the original object of inquiry having been to determine the relative value of barley and malt in feeding cattle.

The volume is neatly republished, and we commend it to the notice of all who are interested in the health and comfort of mankind.

ART. IV. *Chemical Essays relating to Agriculture.* By E. N. HORSFORD, A. M. Pamphlet, 12mo. pp. 68. Boston. 1846.

SINCE the publication of Liebig's valuable works, there have been several contributions to the chemistry of agriculture,

and, of the more recent ones, the essays which are now under notice. The pamphlet is an analysis of the grains and vegetables, distinguishing the nitrogenous from the non-nitrogenous substances, for the purpose of estimating their separate value for nutrition. It concludes with a letter to Prof. Webster, on the action and ingredients of manures.

Mr. Horsford has lately completed his studies in Geissen with Dr. Liebig, and has quite recently been elected Rumford Professor in Harvard University; and we are gratified to learn that the services of one whose studies are so intimately connected with the progress of our agriculture have been selected. The work should be in the hands of every intelligent agriculturist.

ART. V. *The Hasty Pudding; a Poem in three Cantos, written at Chancery, in Savoy, January, 1793.* By JOEL BARLOW, Minister Plenipotentiary to France. *With a Memoir on Maize, or Indian Corn.* Compiled by D. J. Browne, under the direction of the American Institute. Pamphlet. 12mo. pp. 56. New York. 1846.

AN amusing poem in flowing rhyme, depicting the delicious qualities of hasty pudding,—a favorite dish with the author, but not to be procured either in London or Paris, at the time it was written. To this poem, Mr. Browne has added a complete history of the Indian corn, in which he asserts and proves its American origin. Brief descriptions of all the principal varieties are given, and the pamphlet concludes with a great number of recipes for cooking it, in various ways, either green or dry.

ART. VI. *The Rural Register and Almanac for 1847.* Pamphlet. 12mo. pp. 143. Philadelphia, 1847.

A gardening almanac upon a new plan, in which, besides the usual calendrical information of the weather, upwards of

a hundred pages are added, upon the cultivation of fruits, accompanied with engravings of several of the most approved kinds of apples, pears, cherries, plums, strawberries, &c.

The plan is an exceedingly good one, and an almanac of this kind must prove an exceedingly good remembrancer to every amateur cultivator.

ART. VII. *Proceedings of the National Convention of Farmers, Gardeners, and Silk Culturists, held in Mechanics' Hall, in the City of New York, on the 12th, 13th, and 14th days of October, 1846, in connexion with the Nineteenth Annual Fair of the American Institute.* Pamphlet. 8vo. pp. 50. New York. 1846.

WE are deprived of room, to notice this interesting pamphlet as we could wish. It is filled with the reports of committees upon the great subject of diffusing Agricultural information, the culture of silk, &c., and we can only advise its perusal by all who have their interests and the good of the country at heart.

ART. VIII. *The Chemical Principles of the Rotation of Crops.* Pronounced before the American Agricultural Association, March 4, 1846. By D. P. GARDNER, M. D. Quarto Pamphlet, pp. 18. New York. 1846.

DR. GARDNER is well known to the agricultural community, for his exertions in bringing before them information upon all subjects connected with the art of cultivation. But a short time since, we reviewed the *Farmers' Dictionary*, a very excellent work, published under his supervision. We have now before us a most excellent essay of the rotation of crops upon chemical principles; being an address pronounced before the American Agricultural Association, of New York. We need only add, that it is well worthy the attention of every intelligent farmer.

MISCELLANEOUS INTELLIGENCE.

ART. I. *Domestic Notices.*

Splendid Plantation of Pear Trees.—Edward King, Esq., of Newport, Rhode Island, planted, the last spring, an orchard comprising about four hundred pear trees, all of the choicest Belgian and other modern improved varieties. The trees were of extra large size, eight to ten feet in height, and suitable, therefore, to come into bearing the ensuing season, and many of them produced flowers the first season. Notwithstanding the drought, there were but six that failed in growing. These trees were obtained from the Messrs. Prince of Long Island, and this orchard is probably the most valuable that has been formed in New England of this class of fruit.—*Yours, P., January, 1847.*

Remarks on the Hog Artichoke.—I was very glad, Mr. Editor, to find, in the pages of your last number, the article of your correspondent, Dr. Ward, on the differences of variety, as he esteems it, of the two plants of *Helianthus*, growing in his garden. Nor am I, for one, sorry, that his manifest “slip of the pen,” or use of the corrective spirit of your several correspondents, in showing the artichoke to be no *solanum*, which every one knew before, called forth from Professor Ward the article with which he has filled a few of your pages. For my own part, I am bold to declare, that, could any thing induce him to give you an article occasionally, we should be no losers. Among the many curious native and introduced plants of his adopted home, he might find much to tell us, in our boreal clime, on the varied subjects of horticultural lore, or floricultural experience. And as the Dr. is now *in for it*, especially in defence of the Hog Artichoke, I trust that he will favor us with some seeds, roots, or the like, by which we can judge for ourselves also, whether Torrey’s and Gray’s “determination” should be “quietly” received or no. I have always taken a fancy to the Jerusalem artichoke, on account of its fine head of flowers: I should like to cultivate an acquaintance with this variety for the better reason, too, that it is more showy in that respect. Agriculturally, its merits as a root would be better tested at the south than with us: but, as another sort of sunflower, why may not we hail it as an accession to our gardens, that it may show its honest disk among the several sorts of *Helianthus*, which are now cultivated with care. Will not the Dr. think of you, Mr. Editor, in a few seeds?—*Turnsole.*

William S. Sullivant, Esq., communicated to the American Academy of Arts and Sciences (Boston,) through the Corresponding Secretary, a paper entitled “Contributions to the Bryology and Hepaticology of North America,” with drawings of some species: as *Phyllogonium Norwegicum*, (*Bridel*,) a curious and rare moss, recently detected in Ohio: *Fissidens minutulus* (*Sullivant*): *Fissidens exiguus*, (*Sullivant*): singularly minute and delicate species of mosses: *Schistidium serratum*, (*Hooker and Wilson*,) not un-

common in Massachusetts also, and a moss of interesting character: *Aneura sessilis*, (*Sullivant*,) *Marchantia disjuncta*, (*Sulliv.*) of the order Hepaticæ; also, *Notothylas valvata* and *N. orbicularis*, (*Sulliv.*) the two latter singular hepatic plants of much interest. See *Proceedings of Academy*, p. 35, &c.

Professor Gray (of Harvard University) communicated the characters of some new genera and species of Compositæ from Texas, viz., *Vernonia Lindheimeri* (*Gr. and Engelman, Pl. Lindh. med.*): *Ageratum Wrightii*, (*Torrey and Gray, fl. ined.*): *Brickellia cylindræa* (*Gr. and Engelm., Pl. Lindh. ined.*): *Lindheimera texana*, (*Gray*,): *Keerlia bellidifolia* (*Gr. and Engelm., l. c.*): *Tetragonotheca texana*, (*Gr. and Engelm., l. c.*): *Barraetia calva* (*Gray*,). See *Proceedings Amer. Acad.*, pp. 46, 48.—R.

Pleasant Experiment with Andromeda calyculata.—It is well known, that the flower buds of many of our native shrubs, as well as of trees, are formed towards the end of the summer, and are in perfect readiness to expand early in the following spring. Especially is this the case with the Amentaceæ, a natural order, embracing plants furnished with aments or catkins: such as the alder, poplar, willow, and the like. These hardy and daring efforts of Flora seem to link, with an almost continuous chain, the autumn with the spring. The curious, crisped, threadlike blossoms of the witch hazel, in bunches of yellow flowers, appearing when nature is stripping the foliage from the deciduous trees, and when the cold winds of November are reminding us of the snows and storms of winter, scarcely wither on their parent branches, before we find these amentaceous plants pushing off their envelopes, and making ready for the auspicious gales of April and May. Any one who may go into our swamps in midwinter will notice the white and silken flower buds of the swamp willow, with its black and loosened scale-like covering failing to protect what it seemed intended to cover; and by every brook side, the already pendent aments of the black alder will attract attention not less than the similar aments of the hazel nut by every wall, or on the borders of ill cultivated fields. It seems to require but a moderate continuance of vernal heat to set free the constraint laid on these flower buds; to loosen and elongate the spikes, and to shed in profusion, all around, the golden farina with which they are charged. The beauty of the willow, when in blossom, is well known to every lover of wild nature; and its agreeable sweetness is recognized by the bees and many winged insects, which, with a rare sagacity and instinct, know the times appointed for their renewed labors.

Having frequently expanded these aments in winter, by cutting branches of the shrubs, and placing them in water in a warm room, I was induced to try what effect the same treatment would produce on the already formed flower buds of the andromeda. This plant or low shrub grows in every sphagnous swamp, and in overflowed meadows, and gives peculiar beauty to every spring by its unique and regularly set rows of white bells on its slender and leafy branches. Its leaves are sempervirent, and thus remain all winter, turning rather brown on approach of cold. Each flower springs out from the axil of one of the smaller leaves, which invest the terminal racemes, and is of an ovate, cylindrical form, and of delicate whiteness.

Some twigs gathered this winter on December twenty-ninth, 1846, expanded their blossoms on January twelfth, 1847, and other fresh twigs, put into water on January twenty-third, are now in full beauty of expansion, (February 8th). Thus those who are fond of winter bouquets need be in no lack of at least one sort of beautiful flowers, not inferior, in any degree, to many of the Cape heaths, which are so deservedly prized for their elegance and rarity. I have tried a similar experiment on the buds of *Rhododéndron máximum*, but without success. Perhaps *Rhodòra canadénsis* may be made to expand in the same manner: a trial would do no harm.

Some fresh tufts or plants of *Lycopòdium dendroideum*, a few twigs of *Prinos glaber*, a bit of *Kálmia latifolia*, and, if possible, a piece of *Lycopòdium clavatum*, and its more beautiful cospecies *Lyc. lucidulum*, with straight handsome pieces of *Andrómeda calyculàta*, (the little plant under our present notice,) and, if you like, a few of the silken aments of *Sàlix eriocéphala*, let us add also the scarlet berries of *Prinos verticillàtus*, will make up for you, reader, no mean mantel-ornament to remind you, as a bouquet to be kept in water for a few weeks, of those pleasanter days which are coming, when, from the lingering beauties of Flora in midwinter, you need no longer cull with so much effort or care.—*An Admirer of all Seasons*, February 8, 1847.

The Winter in Georgia.—The winter with us has been, thus far, mild. No very killing frosts till January 8th, when we had the thermometer down to 10°. On January 1, I noticed these in flower in the open garden;—Irish whin in full beauty; a few monthly roses and little chrysanthemums, the upper flowers and stems killed by previous frosts at 24°; two or three varieties of narcissus polyanthus; *Viola odoràta* and tricolor; purple and pink verberna; sweet alyssum, dandelion, white and single hyacinths, Chinese pinks.—*Yours, M. A. W., Athens, Ga., Jan. 12, 1837.*

Horticulture in Ohio.—There has, within the last few years, been awakened, within this region of country, the most intense interest on the subject of Horticulture, and Ohio is yet destined to be a great fruit country. She has such a variety of soils, that there are situations congenial to almost every variety of fruit. The blight of the Pear tree is one of the most fatal diseases that afflict her fruit.

I wish you all possible success in improving the taste of the public.—*Yours, very respectfully, C. Springer, Meadow Farm, Ohio, Feb. 1847.* [We shall be glad to hear from our correspondent as often as leisure will permit.—*Ed.*]

Maine Pomological Society.—We are glad to learn that our Pomological friends in Maine have recently organized a society under the above name, with the object in view of bringing into notice the new seedling fruits which abound in the orchards of that State. The first meeting was held on Wednesday, January 6th, and quite a number of apples were exhibited by individuals from different parts of the State. At the second meeting, a code of by-laws was adopted, and our friend, Dr. Holmes of the *Farmer*, chosen Corresponding Secretary. At this meeting, a variety of apples were exhibited. We hope, through our correspondents, to keep our readers informed of the doings of the association.—*Ed.*

Genesee Valley Horticultural Society.—We are happy to witness the increase of Horticultural associations in various parts of the country. In Rochester, one has been organized, which, we doubt not, will have a most beneficial effect in aiding in the dissemination of a better taste for Horticulture. Having been notified of our election as an honorary member, we have ordered our magazine to be forwarded for the Library; and we trust we may, in other ways, serve the interests of the society.—*Ed.*

Steubenville Horticultural Society, Ohio.—The Buckeye State is treading closely on the heels of New York and the Eastern States. Societies have been organized in Cincinnati, Cleveland, and Columbus, and now we have to add to the list that of Steubenville. Our name having been enrolled among the honorary members, we trust that the offer of our Magazine will not be an unacceptable addition to the Library.—*Ed.*

Helianthus divaricatus and giganteus are both old and familiar acquaintances of mine. The Hog artichoke is far enough from either. The whole herbage approaches nearer to *tuberosus* than to any of the commonly described species—but is not: the phrase should have been *inversely*, or ob “fusiform”: I have never known it to fail of being decidedly tuberous, never “mere strings.”—*Yours, M. A. W., Athens, Ga., Jan. 1847.*

New Grape in Ohio.—We have a new grape in Ohio, of merit.—I say new, because only brought particularly into notice within a few years. It is growing on a Bog Island, which is in the Ohio River, below Wheeling, and on this Island can be found this kind of grape only, and nowhere else in the state or in the west, that we know of, is the same variety. Hon. Thomas Ewing told me this day, that he ate the grapes from these vines 20 years ago, and thought them the best grapes he ever had tasted. They bear a comparison with the Catawba, but they are a red grape. The supposition is, that they grew from seeds left on the Island by the French, probably in 1800, or thereabouts, either from European grapes or raisins eaten there by them, (if the seed of a raisin will grow,) as the vines are tolerably thick set, or rather in what we may term a clump.

We are getting a number of zealous Pomologists in our state. Ohio bids fair to stand No. 1, in all respects, with her sister states.—*Yours, respectfully, A. Fahnestock, Lancaster, Ohio, Feb. 1847.*

Muskeet grass.—Enclosed I send you a few seeds of the Muskeet grass; they look rather chaff-like, but they will come up. Sow them round the edge of a pot in your green-house, and prick them out in the spring.—*Yours, M. A. Ward, Athens, Ga., Jan. 1847.*

Deean's Superb Grape.—I have seen a report that the Deean's superb grape, exhibited by me before the Pennsylvanian Horticultural Society, was a black variety. It is a white large round fruit, very handsome tapering bunch, well shouldered and first rate flavor.

Charges Henling is a black variety, round berries, medium size, long tapering bunches, very sweet spicy flavor. These two grapes are quite distinct from any others I have cultivated.—*Yours, R. Buist, Phila. January 21, 1847.*

ART. II. *Massachusetts Horticultural Society.*

Saturday, January 23, 1847.—[At this meeting, a portion of the doings of which we gave in our last number, the Report of the Committee for establishing Premiums for 1847 was adopted, and ordered to be placed in the hands of the Committee of Publication. We now have the opportunity to present the list of Premiums to be awarded the present year.]

LIST OF PREMIUMS FOR 1847.

SPECIAL PRIZE LIST OF FRUITS,

To be awarded in the year 1847, viz : Twenty Prizes of Five Dollars each.

- 2 prizes for the two best varieties and specimens of Summer Apples.
- 2 prizes for the two best varieties and specimens of Autumn Apples.
- 2 prizes for the two best varieties and specimens of Winter Apples.
- 2 prizes for the two best varieties and specimens of Summer Pears.
- 2 prizes for the two best varieties and specimens of Autumn Pears.
- 2 prizes for the two best varieties and specimens of Winter Pears.
- 2 prizes for the best varieties of Cherries.
- 2 prizes for the best varieties of Plums.
- 4 prizes for the best varieties of Peaches.

—
20 prizes, at \$5 each=\$100.

The specimens presented for the above prizes, shall consist of not less than three specimens of each variety of Apples, Pears and Peaches ; not less than one dozen Plums, and two dozen Cherries ; all of which shall be at the disposal of the Committee on Fruits.

PREMIUMS FOR FRUITS.

For the best and most interesting exhibition of Fruits, during the season, the Lowell Gold Medal, valued at . . . \$40 00

TO BE AWARDED AT THE ANNUAL EXHIBITION IN SEPTEMBER.

- APPLES.—For the best exhibition, the Society's plate, valued at \$25 00
 For the 2d best, the Appleton Silver Gilt Medal, . . . 10 00
 For the 3d best, a premium of 5 00
- PEARS.—For the best exhibition, the Lyman Plate, valued at 25 00
 For the 2d best, the Lowell Silver Gilt Medal, . . . 10 00
 For 3d best, a premium of 5 00
- GRAPES.—For the best exhibited, three varieties, two bunches each, the Lyman Plate, valued at 25 00
 For the next best exhibited, ... 10 00
 For the next best exhibited, ... 5 00
- ASSORTED FRUIT.—For the best basket of Fruit, of various kinds, 10 00
 For the next best, a premium of 7 00
 For the next best, a premium of 5 00

For the best dish of Apples, not less than 12 specimens of one variety, a premium of	\$5 00
For the 2d best, a premium of	3 00
For the best dish of Pears, not less than 12 specimens of one variety, a premium of	5 00
For the next best, a premium of	3 00
Assorted fruits in baskets shall not be entitled to any other than the premium for such.	

☞ *The above premiums to be awarded on the first day of the Exhibition.*

PREMIUMS DURING THE SEASON.

APPLES.—For the best summer Apples, on or before the 1st Sept.	\$6 00
For the next best, a premium of	4 00
For the best fall Apples, on or before the 1st Dec., ...	6 00
For the next best, a premium of	4 00
For the best winter Apples, on or before the 1st March, ...	6 00
For the next best, a premium of	4 00
PEARS.—For the best collection of new Pears, not exhibited before this year, the Society's Silver Gilt Medal, ...	15 00
For the next best	10 00
For the best summer Pears, on or before the 1st September, ...	6 00
For the next best, a premium of	4 00
For the best fall Pears, on or before the 1st December, ...	6 00
For the next best, a premium of	4 00
For the best winter Pears, on or before the 1st March, 1848, ...	10 00
For the next best, a premium of	6 00
CHERRIES.—For the best specimen, not less than two quarts, ...	6 00
For the 2d best a premium of	4 00
PEACHES.—For the best specimens grown under glass, ...	6 00
For the 2d best, a premium of	4 00
For the best specimens grown in open culture, ...	6 00
For the 2d best, a premium of	4 00
APRICOTS.—For the best specimen of Apricots, ...	6 00
For the 2d best, a premium of	3 00
NECTARINES.—For the best specimen of Nectarines, ...	6 00
For the 2d best, a premium of	4 00
QUINCES.—For the best specimens of the best kind of Quinces, ...	5 00
For the 2d best, a premium of	3 00
PLUMS.—For the best Plums of the <i>best flavor</i> , not less than two quarts, ...	6 00
For the next best, ...	3 00
GOOSEBERRIES.—For the best flavored and finest specimens, two boxes, ...	5 00
For the 2d best, a premium of	3 00
CURRANTS.—For the best flavored and finest specimens, two boxes, ...	5 00
For the 2d best, a premium of	3 00
RASPBERRIES.—For the best specimens of Raspberries, not less than two boxes, ...	5 00
For the 2d best, a premium of	3 00

The Committee on Fruit will hold a session to award the premiums on *Summer Apples and Pears*, on the 1st Saturday in September.
 On *Fall Apples and Pears*, on the first Saturday in December.
 On *Winter Apples and Pears*, on the first Saturday in March.
 All gratuities for seedlings will be equal to the highest prize awarded to that variety of fruit.

PREMIUMS FOR PLANTS, FLOWERS AND DESIGNS.

For the best display of Green-House Plants in pots through the season, the Appleton Gold Medal, valued at . . .	\$40 00
For the 2d best display of do., the Society's Silver Gilt Medal, valued at	15 00

Provided, however, that whatever amount may be awarded during the season for the exhibition of Pot Plants, to the person who shall be entitled to said medals, shall be deemed as constituting a part of their value.

DISPLAY OF GREEN-HOUSE PLANTS IN POTS.

To be exhibited at the opening of the Hall, on the 1st Saturday in May :

PELARGONIUMS.—Class I.—For the best six new and rare varieties,		
grown in six-inch pots, a premium of	.	\$6 00
For the 2d best, a premium of	.	4 00
Class II.—For the best six varieties of any sort, grown in		
large pots,	.	6 00
For the 2d best,	.	4 00

ROSES.—For the best six varieties of Tea, Bourbon, Noisette, or	
Bengal, a premium of	\$ 6 00
For the 2d best, ...	4 00
For the 3d best, ...	2 00
CUT FLOWERS.—For the best display, a premium of	3 00
For the 2d best, ...	2 00
FUCHSIAS.—For the best six varieties, a premium of	6 00
For the 2d best, ...	4 00
CACTUS.—For the best six varieties, a premium of	3 00
For the 2d best, ...	2 00
CALCEOLARIAS.—For the best six varieties, a premium of	3 00
For the 2d best, ...	2 00
CINERARIAS.—For the best six varieties, a premium of	3 00
For the 2d best, ...	2 00
HEATHS.—For the best varieties, a premium of	3 00
For the 2d best, ...	2 00
VARIOUS SORTS.—For the best display of various sorts of Green	
House Plants, not less than twelve pots, a premium of	8 00
For the 2d best display, ...	5 00
HYACINTHS.—Premiums to be awarded second Saturday in May.	
For the best display not less than twenty varieties, ...	5 00
For the 2d best, ...	3 00
TULIPS.—Premiums to be awarded the third Saturday in May.	
For the best thirty distinct varieties, a premium of	8 00
For the 2d best, ...	6 00
For the 3d best, ...	3 00
PANSIES.—Premiums to be awarded the fourth Saturday in May.	
For the best twelve distinct varieties, a premium of	4 00
For the 2d best, ...	3 00
For the 3d best, ...	2 00
HAWTHORNS.—Premiums to be awarded the fourth Saturday in May.	
For the best display, a premium of	3 00
For the 2d best.	2 00
HARDY AZALEAS.—Premiums to be awarded 4th Saturday in May.	
For the best display, a premium of	3 00
For the 2d best, ...	2 00
SHRUBBY PEONIES.—Premiums to be awarded 4th Saturday in May.	
For the best six varieties, a premium of	5 00
For the 2d best, ...	4 00
For the best display, ...	3 00
HERBACEOUS PEONIES.—Premiums to be awarded 2d Sat'dy in June.	
For the best 12 flowers, having regard to the number of varieties, ...	5 00
For the 2d best, ...	4 00
For the best display, ...	3 00
PINKS.—Premiums to be awarded 3d Saturday in June.	
For the best six distinct varieties, a premium of	4 00

For the 2d best, ...	\$ 3 00
For the best display, ...	2 00
RANUNCULUS.—Premiums to be awarded in June.	
For the best display a premium of	5 00
For the 2d best, ...	3 00
ANEMONES.—Premiums to be awarded in June.	
For the best display, a premium of	5 00
For the 2d best, ...	3 00
ROSES, in Classes.—Premiums to be awarded 3d Saturday in June.	
<i>Hardy Roses.</i>	
Class I.—For the best thirty distinct varieties, a premium of	8 00
For the 2d best, ...	6 00
For the 3d best, ...	4 00
For the third best display, ...	3 00
Class II.—For the best twelve distinct varieties, a premium of	5 00
For the 2d best, ...	3 00
For the 3d best, ...	2 00
<i>Perpetual Roses.</i>	
Class III.—For the best ten varieties, a premium of	5 00
For the 2d best, ...	4 00
For the best display, ...	3 00
<i>Prairie Roses.</i>	
Class III.—For the best display, a premium of	4 00
For the 2d best, ...	3 00
CARNATION AND PICOTEE PINKS.—Premiums to be awarded 3d Saturday in July,	
For the best ten varieties, a premium of	5 00
For the 2d best, ...	4 00
For the best display, ...	3 00
MAGNOLIAS.—For the best display through the season, a premium of	3 00
For the 2d best, ...	2 00
HARDY RHODODENDRONS.—For the best display of the season, a premium of	
For the 2d best, ...	3 00
For the 2d best, ...	2 00
DOUBLE HOLLYHOCKS.—Premiums to be awarded third Saturday in July.	
For the best display, a premium of	3 00
For the 2d best, ...	2 00
For the 3d best, ...	1 00
DOUBLE BALSAMS.—Premiums to be awarded 2d Saturday in Aug.	
For the best display, a premium of	3 00
For the 2d best, ...	2 00
For the 3d best, ...	1 00
PHLOXES.—Premiums to be awarded 3d Saturday in August.	
For the best ten distinct varieties, a premium of	6 00
For the 2d best, ...	4 00
For the 3d best, ...	3 00

GERMAN ASTERS.—Premiums to be awarded 2d Saturday in Sept.

For the best display, a premium of	\$ 4 00
For the 2d best, ...	3 00
For the 3d best, ...	2 00

BOUQUETS, WREATHS, DESIGNS, &c.

Premiums to be awarded at the Annual Exhibition.

VASE BOUQUETS.—For the best pair suitable for the Bradlee Vases	10 00
For the 2d best, ...	6 00
For the best pair for the Society's Marble Vases, ...	10 00
For the 2d best, ...	6 00
PARLOR BOUQUETS.—For the best pair suitable for the parlor, ...	5 00
For the 2d best, ...	3 00
For the 3d best, ...	2 00
HAND BOUQUETS.—For the best pair, a premium of	3 00
For the 2d best, ...	2 00
For the 3d best, ...	1 00
GRASS BOUQUETS.—For the best composed of grass, ...	3 00
For the 2d best, ...	2 00
BOUQUETS OF INDIGENOUS FLOWERS.—For the best, a premium of	3 00
For the 2d, ...	2 00
MOSS VASES, BASKETS OF FLOWERS, or any other neat, appropriate designs, suitable for the occasion.—For the best, a premium of	12 00
For the 2d best, ...	8 00
For the 3d, ...	6 00
For the 4th, ...	5 00
WREATHS.—For the best, not less than thirty feet in length, ...	10 00
For the 2d best, ...	5 00
For the 3d best, ...	3 00

DAHLIAS.—Premiums to be awarded fourth Saturday in September.

Division A.

PREMIER PRIZE.—For the best twelve dissimilar blooms, the Society's Silver Medal, ...	5 00
SPECIMEN BLOOM.—For the best flower, ...	3 00
VARIOUS COLORS.—For the best yellow, buff or orange ; purple or maroon ; crimson or claret ; very dark ; white ; edged or tipped ; scarlet ; pink or rose ; a premium of \$ 1 each, ...	8 00

Division B.

CLASS I.—For the best twenty-four dissimilar blooms, ...	8 00
For the 2d best, ...	5 00
CLASS II.—For the best eighteen dissimilar blooms, ...	6 00
For the 2d best, ...	4 00
CLASS III.—For the best twelve dissimilar blooms, ...	5 00
For the 2d best, ...	3 00
CHRYSANTHEMUMS.—Premiums to be awarded Nov. 13th.	
For the best twelve distinct varieties, in trusses, ...	3 00
For the 2d best, ...	2 00

HERBACEOUS PERENNIALS.—For the best display through the sea-

son, the Society's Silver Medal, ...	\$5 00
For the 2d best, a premium of	4 00
For the 3d best, ...	3 00

ANNUALS.—For the best display through the season, the Society's

Silver Medal, ...	5 00
For the 2d best display, a premium of	4 00
For the 3d best, ...	3 00

INDIGENOUS PLANTS.—For the best display of the season, ...

For the 2d best, ...	2 00
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CAMELLIAS.—Premiums to be awarded second Saturday in Feb.

For the best twelve varieties of cut flowers, with foliage, ...	8 00
For the 2d best, ...	5 00

CHINESE PRIMROSE.—Premiums to be awarded 2d Saturday in Feb.

For the best six varieties in pots, a premium of	3 00
For the 2d best, ...	2 00

GREENHOUSE AZALEAS.—Premiums to be awarded second Saturday in March.

For the best six varieties in pots, ...	6 00
For the 2d best, ...	4 00

PREMIUMS TO BE AWARDED AT THE WEEKLY EXHIBITIONS.

For the best six Pot Plants, of different varieties, a

premium of \$2 00

For the 2d best do., ... 1 00

For the best large Bouquet for vases or parlor, com-

posed of flowers gracefully arranged, a premium of 2 00

For the 2d best do., ... 1 00

For the best six hand Bouquets, ... 2 00

For the 2d best do., ... 1 00

\$650 00

For this purpose, one hundred dollars have been appropriated.

PREMIUMS FOR VEGETABLES.**ASPARAGUS.**—For the earliest and best, not less than three bunches, 5 00**BEETS.**—For the best, (pure blood beet,) during the season, not less than twelve roots, ... 5 00**BROCCOLI.**—For the best three heads, a premium of 5 00**BEANS.**—For the best and earliest peck of string beans, ... 3 00

For the best and earliest Lima beans, not less than two quarts, 3 00

For the best and earliest variety of shell beans, ... 4 00

CUCUMBERS.—For the best pair under glass, previous to the first

Saturday of June, ... 5 00

For the 2d best, a premium of 3 00

For the best and earliest, of open culture, a premium of 3 00

CAULIFLOWERS.—For the best and largest, during the season, not less than three heads, ... 5 00

For the 2d best a premium of 3 00

CORN.—For the best and earliest sweet corn, not less than 12 ears,	\$3 00
CABBAGE.—For the best drumhead cabbage, during the season, not less than three heads,	5 00
For the 2d best, a premium of	3 00
For the best Savoy cabbage, during the season, not less than three heads, ...	3 00
For the 2d best, a premium of	2 00
EGG PLANTS.—The best display, during the season, ...	5 00
LETTUCE.—For the best six heads, before the 1st Saturday in July,	3 00
POTATOES.—For the best, <i>new</i> seedling, of superior quality for the table, ...	10 00
For the best and earliest peck, previous to Aug. 1, ...	3 00
PEAS.—For the best and earliest peck in June, ...	3 00
RHUBARB.—For the largest and best, previous to the first Saturday in July, not less than twelve stalks, ...	5 00
SQUASHES.—For the best pure Canada squashes, not less than six in number, ...	5 00
For the greatest variety exhibited during the season, ...	5 00
TOMATOES.—For the best and earliest, not less than one dozen, ...	5 00
VEGETABLES.—For the best display and greatest variety at the weekly exhibitions, during the season, ...	10 00
For the 2d best, a premium of	5 00
For the best display and greatest variety at the ann'l exhibition,	10 00
For the 2d best, a premium of	7 00
For any new variety of vegetables suitable for the table, and worthy of cultivation, other than seedling potatoes, ...	6 00
CELERY.—For the best and largest blanched, not less than six roots,	5 00
For the 2d best, a premium of	3 00
	\$150 00

For the Committee to establish premiums, S. WALKER, *Chairman*.

The Rules and Regulations are the same as last season.

Feb. 6th.—An adjourned meeting of the Society was held to-day—the President in the chair.

A report on a package of seeds, received from Prof. Fischer of the St. Petersburg Botanic Garden, was read by Prof. J. L. Russell, and the seeds were placed in the hands of Prof. Gray of Harvard University, with a request to report upon such as prove worthy of cultivation.

A letter was read from Dr. W. D. Brinkle, of Philadelphia, in regard to the origin and history of the Tyson pear. Dr. Brinkle states that he was first led to this inquiry, after reading our description of this fine variety, which we figured in our last volume (XII. p. 434), and he confirms the account we gave of it.

A letter was read from the Hon. Theodore Lyman, enclosing an order for a copy of Prof. Gray's new work, to be placed in the Library. The thanks of the Society were voted to Mr. Lyman.

The Finance Committee reported that they had purchased twenty-two shares of the stock of the Worcester Rail-road, amounting to \$2458 50.

George C. Crowninshield, Boston, and Francis George Theiler, Dorchester, were admitted members.

Adjourned four weeks to March 6th.

Feb. 13th, Exhibited.—FLOWERS: From the President of the Society Twenty varieties of Camellias, viz., *Albértus*, *Donckelaërii*, tricolor, ochroleuca, Palmer's, Perfection, fimbriata, imbricata, *Flòyii*, *Gilesii*, *conspicua*, *eximia*, *Fòrdii*, *Wilderi*, *William IV.*, *Eclipse*, *élegans*, *álba plena*, *Práttii*, *Colvillii*, *Chándleri* and *Duchesse d'Orleans*; also, a fine cut specimen of *Acácia spectábile*, one of the finest of this showy family, and flowers of *Chorizema varium*.

Messrs. Hovey & Co. exhibited fourteen varieties of Camellias, as follows:—*Flòyii*, *álba plena*, *Henri Favre*, *élegans*, *Vaúxii*, *Carswelliàna*, *Landrèthii*, *corállina*, tricolor, *myrtifolia*, *conspicua*, *Goussònia*, *Donckelaërii* and *Chándleri*; also six pots of Chinese primroses, two of which were the rare and beautiful double white, with several trusses of flowers on each. From W. Quant, 12 varieties of Camellias, and six pots of Chinese Primroses, among which was a seedling of a peculiar tint of blush, very pretty.

The Premiums for Camellias and Chinese Primroses were awarded to-day, as follows:—

CAMELLIAS.—For the best twelve varieties of cut flowers with foliage, premium to Messrs. Hovey and Co., of \$8.

For the second best twelve varieties, to W. Quant, a premium of \$5.

A gratuity of \$8 was also awarded to the President for a variety of Camellias.

CHINESE PRIMROSES.—For the best six plants, a premium to Wm. Quant, of \$3.

For the next best, a premium to Messrs Hovey & Co., of \$2.

ART. III. *Answers to Correspondents.*

ROOT PRUNING.—A. R. Pope. The best season for performing root pruning is in April. A trench should then be dug about three feet from the trunk of the tree, extending in a circle completely around it: All the *very large* roots should then be cut clean off, either with a sharp spade or knife, being careful not to injure the small roots. The trench should then be filled up, and the ground properly manured and cultivated; the following year, the results of the operation will be perceived, or, if not so decidedly then, the second year; some trees are so very vigorous, that even cutting off the large roots does not check them at once. We should judge that the peach tree you speak of, however, was not the true kind; perhaps it is a seedling, and that is the cause of its non-productiveness.

STRAWBERRIES.—W. We stated, some time since, that the Black Prince was considered as worthless by the London Horticultural Society; those who cultivate it will find it so, in comparison with better kinds. The Swain-

stone seedling is also quite unworthy of cultivation ; it is a very high flavored fruit, but only of medium size, and a poor bearer ; the vines quite tender in winter, and burnt by the sun in summer : in some situations, it may produce half a crop ; but all who cultivate it, will be greatly disappointed if they trust to the statements which have been made in regard to it. It has been cultivated around Boston six years, but we have never yet known a *single* box offered for sale, or but *one* box exhibited before the Massachusetts Horticultural Society.

DAHLIAS, *J. P.*—Dahlias have been so much improved, that the catalogues do not now contain any really poor varieties : but there is quite a variety of excellence in the many kinds which make up the great number. The following are twelve fine kinds for show flowers :—Admiral Stopford, Antagonist, Duke of York, Cleopatra, Marchioness of Ormonde, Harlequin, Arethusa, Orlando, Punch, Sir E. Antrobus, Beeswing and Standard of Perfection.

CINERARIAS. *A Prize Exhibitor.*—This beautiful tribe, which has recently been so much improved, is of easy cultivation, either by seeds, cuttings, or offsets, and excellent articles will be found in our two last volumes on their growth. Raising from seeds, is the way to get new varieties, and if choice seeds are procured fine kinds may be expected. The seeds should be sown immediately, in a pot, placed in a hot-bed, or the green-house, and in spring the plants can be pricked out into the open ground. Taken up and properly potted in the autumn, they will make beautiful plants for exhibition in the spring of 1848.

PELARGONIUMS. *C.*—Twelve fine pelargoniums, of such kinds as can be obtained of our nurserymen, are as follows :—Sylph, Queen Phillippi, Celestial, Bridegroom, Priory Queen, Jenny Lind, Conservative, Sophia Matilda, Foster's Matilda, King John, Erectum and Medora. Beck's new seedlings are far superior to most of these, but they are yet rare, and none of them for sale in American collections till the next autumn.

HORTICULTURAL MEMORANDA

FOR MARCH.

FRUIT DEPARTMENT.

Grape Vines in the green-house will now have just broken their eyes, and will be pushing forward with vigor ; by the latter part of this month, if they have been properly treated, the shoots will be about ten inches in length, and will show their flower-buds ; syringings should be freely given in all good weather, until the eyes are all broken, and the usual attention given to bending down the shoots, should the upper eyes get the advance of the lower ones : the main object with a good grape-grower, is, to break every eye. Vines in pots, which are now showing fruit, should be moderately supplied with water. A temperature of 45 to 50 deg. at night is ample for this month.

Apple Trees may now be root-grafted, and placed in boxes, where they may remain in a cool place till the season for planting out in April.

Raspberry Plants and Strawberry beds may be uncovered the last part of the month, should the weather prove mild.

Scions may now be cut, and placed away in a cool place till wanted.

Pruning Trees may now be attended to where there are large quantities, in order to prevent the accumulation of too much work in April.

Pear, Apple and Quince Seeds should be planted as soon as the frost is out of the ground.

FLOWER DEPARTMENT.

Camellias will now begin to make their new growth ; keep them well watered, syringing the foliage twice a week ; pick off all decayed flowers ; and prune off dead wood, or crooked branches ; the *Camellia* bears the knife well, and its freer use would prevent the quantity of unsightly plants, which abound in every collection. Water once a fortnight with weak guano. Inarching may now be performed.

Pelargoniums will now be coming forward in fine condition, if our remarks have been followed. If there are any plants which have not been potted, now is the time to do it ; and if any have not been properly trained, they should not be neglected any longer : keep down the green fly, and occasionally syringe the foliage.

Japan Lilies will now have grown 6 or 8 inches, and will require moderate quantities of water, and a good airy situation on the stage.

Gloxinias should now be potted and placed in a hot-bed, or warm situation, to start them into growth.

Calceolarias will require another shift into larger pots.

Verbenas and Petunias will require repotting now.

Fuchsias. The old plants may now be turned out of the pots, the earth partially rubbed off, and repotted again into a suitable compost.

Roses will now be coming into bloom, and will now require occasional syringing over the foliage.

Cinerarias should now be shifted into larger pots.

Gesnera zebrina should now be placed in a hot-bed, to give the little corms a rapid start.

Dahlias for early blooming may still be potted.

Heaths which appear stunted for want of room should now be repotted.

Hyacinths and Tulip beds will require attention the latter part of the month ; if the weather is very mild, part of the covering may be removed.

Annual flower seeds, such as 10-week Stock, *Brachycome*, *Phlox Drummondii*, *Verbena*, *Petunia*, *Lotus jacolaus*, and other choice varieties, may now be planted, for early blooming in the open border.

Plants in frames will now need airing every fair day.

Veronica speciosa may now be propagated from cuttings.

Cactuses should be more liberally watered after they show their flower buds.

Heliotropes, salvias, scarlet geraniums, and other showy plants, should now be propagated for a stock, for bedding out in spring.

THE MAGAZINE OF HORTICULTURE.

APRIL, 1847.

ORIGINAL COMMUNICATIONS.

ART. I. *Horticulture of the Past, as compared with the Present.* By T. S. HUMRICKHOUSE, Coshocton, Ohio.

AT this remote distance of time, it is very difficult for us to estimate justly what proficiency the Antients may have had in Horticulture. Evelyn did not rate it very high. In a letter to Mr. Wotton, he says:—"Concerning the gardening and husbandry of the Antients, which is your inquiry (especially of the first), that it had certainly nothing approaching the elegance of the present age, Rapinus (whom I send you) will abundantly satisfy you. The discourse you will find at the end of Hortorum, lib. 4. capp. 6, 7. What they called their gardens were only spacious plots of ground planted with platanus and other shady trees in walks, and built about with porticos, xisti, and noble ranges of pillars, adorned with statues, fountains, piscariæ, aviaries, &c. But for the flowery parterre, beds of tulips, carnations, auricula, tuberosa, jonquills, ranunculus, and other of our rare coronaries, we hear nothing of, nor that they had such store and variety of rare exoticks, orangeries, myrtles, and other curious greens; nor do I believe they had their orchards in such perfection, nor by far our furniture for the kitchen. Pliny, indeed, enumerates a world of vulgar plants and olitories, but they fall infinitely short of our physic gardens, books, and herbals, every day augmented by our sedulous botanists, and brought to us from all quarters of the world. And as for their husbandry and more rural skill, of which the same author has written

so many books in his Natural History, especially lib. 17, 18, &c., you'll soon be judge what it was. They took great care, indeed, of their vines and olives, stercoreations, ingraftings, and were diligent in observing seasons, the course of the stars, &c.; and doubtless were very industrious; but when you shall have read over Cato, Varro, Columella, Paladio, with the Greek Geoponicks, I do not think you will have cause to prefer them before the modern agriculture, so exceedingly of late improved, for which you may consult and compare our old Tusser, Markham, *the Maison Rustic*, Hartlib, Walter Blith, the Philosophical Transactions, and other books, which you know better than myself."

If all this might well be said by Evelyn in his day, with how much more propriety now, by us in ours; and with how much greater justice might we not also include his catalogue of the then Moderns. If we examine, however, more critically his remarks, so as to take in the whole scope of the premises he lays down, may we not doubt if his be not too severe a judgment? In what consists the mighty difference? Evelyn goes into particulars; and it cannot be doubted that, of many things, now the rarest and most admired ornaments of our gardens, and the most exquisite delicacies upon our tables, they were entirely destitute; of others, they possessed not the same nor the abundance of excellent varieties that we do: but our author is careful further to note, that "they took great care indeed of their vines and olives, stercoreations, ingraftings, and were diligent," &c.: and Solomon, had he consulted him, would have refuted much that he advances about gardens; and Virgil, had he borne him in mind, would have put to flight much more in reference to horticultural skill.

Having mentioned Solomon, however familiar he may be to most readers, I must be indulged in one quotation from him—but one, out of many beautiful passages that occur in his Song. "A garden enclosed is my sister, my spouse; a spring shut up, a fountain sealed. Thy plants are an orchard of pomegranates, with pleasant fruits; camphire with spikenard, spikenard and saffron; calamus and cinnamon, with all trees of frankincense, myrrh and aloes, with all the chief spices. A fountain of gardens, a well of living waters, and streams from Lebanon. Solomon had a vineyard at Baalhamon; he let

out the vineyard unto keepers; every one, for the fruit thereof, was to bring a thousand pieces of silver. Let us get up early to the vineyards; let us see if the vine flourish, whether the tender grape appear, and the pomegranates bud forth. The mandrakes give a smell, and at our gates are all manner of pleasant fruits, new and old, which I have laid up for thee, O my beloved."

If it were desired to magnify this subject, the object would be sufficiently attained by referring to the Mosaic account of the creation of the world. "And the Lord God planted a garden eastward in Eden; and there he put the man whom he had formed."

That much of the skill, and many of the most approved appliances of the gardener's art have come down to him from a very remote antiquity is true beyond dispute. St. Paul seizes upon a figure, derived from this source, to enforce a sublime doctrine. "And if some of the branches be broken off, and thou, being a wild olive tree, wert grafted in among them, and with them partakest of the root and fatness of the olive tree, boast not against the branches: but, if thou boast, thou bearest not the root, but the root thee. Thou wilt say then, The branches were broken off, that I might be grafted in. Well: because of unbelief they were broken off, and thou standest by faith," &c.

To the Antients, then, are we indebted for the knowledge we possess of the art of grafting. This great fact must not be forgotten. And we have also derived from them our knowledge of the operation of budding, sister to the former. This demands from us redoubled acknowledgments. The precise period of the invention of these arts, like many of the most common and useful of our tools and implements of labor, is lost in remote antiquity. To go no further back than Virgil, we find him describing, in graceful hexameters, and not without hyperbole, the modes and the effects both of grafting and budding. Of grafting, he says:—

"Et sæpe alterius ramos impune videmus
Vertere in alterius, mutataque insita mala
Ferre pyrum, et prunis lapidosa rubescere corna.
Quare agite, ô proprios generatim discite cultus,
Agricolæ, fructusque feros molite colendo.

Neu segnes jaceant terræ : juvat Ismaro Bacho
 Conserere, atque oleâ magnum vestire Taburnum.
 Tuque ades, inceptumque unâ decurre laborem,
 O decus, ô famæ merito pars maxima nostræ,
 Macenas, pelagoque volans da vela patenti.
 Non ego cuncta meis amplecti versibus opto :
 Non mihi si linguæ centum sint, oraque centum,
 Ferrea vox : ades, et primi lege littoris oram.
 In manibus terræ : non hic te carmine ficto,
 Atque per ambages et longa exorsa tenebo.

Sponte sua quæ se tollunt in luminis auras,
 Infœcunda quidem, sed læta et fortia surgunt.
 Quippe solo natura subest. Tamen hæc quoque siquis
 Inserat, aut scrobibus mandet mutata subactis,
 Exuerint sylvestrem animum : cultuque frequenti,
 In quascunque voces artes, haud tarda sequentur,
 Nec non et sterilis quæ stirpibus exit ab imis,
 Hoc faciet, vacuos si sit digesta per agros :
 Nunc altæ frondes et rami matris opacant,
 Crescentique adimunt foetus, uruntque ferentem.
 Jam, quæ seminibus jactis se sustulit arbos,
 Tarda venit, seris factura nepotibus umbram :
 Pomaque degenerant succos oblita priores ;
 Et turpes avibus prædam fert uva racemos.
 Scilicet omnibus est labor impendendus, et omnes
 Cogendæ in suleum, ac multâ mercede domandæ.”

Of budding, he says :—

“ Nec modus inserere atq ; oculos imponere simplex.
 Nam quâ se medio trudent de cortice gemmæ,
 Et tenues rumpunt tunicas, angustus, in ipso
 Fit nodo sinus : huc alienâ ex arbore germen
 Includunt, udoque docent inolescere libro.
 Aut rursum enodes trunci resecantur, in altè
 Finditur in solidum cuneis via : deinde feraces
 Planæ immituntur. Nec longum tempus, et ingens
 Exiit ad coelum ramis felicibus arbos,
 Miraturque novas frondes, et non sua poma.”

Who can doubt, that, had the discovery of the arts of grafting and budding been reserved for the present age, the lucky individual who should be the first to find them out and make them known, would receive such applause as to place him in the same rank of geniuses with Franklin, Whitney, Fulton, and the host of worthies—names ever to be revered by sci-

ence. In such case, would it not be considered one of the wonderful events of our time? When should we get done talking about it?

But this subject is so fruitful, care must be taken that your pages be not overburdened with it; if, indeed, too much has not been already said. Allow me, in addition, to transfer to your pages the following extract from a letter of Evelyn to Dr. Wilkins, Feb. 17, 1660, which I do without remark:—

“It is certain, as Dr. Goddard has shewed, that a section of any tree made parallel to the horizon, will, by the closeness of the circles, point to the North, and so, consequently, if a perpendicular be drawn through them for the meridian, the rest of the cardinals &c., found out; but this is not so universal, but that, where strong reflections are made, as from walls, the warme fumes of dunghills, and especially if the southern side be shaded, &c., those ellipticall and hyperbolicall circles are sometimes very irregular; and I doubt not but, by some art, might be made to have their circles as orderly as those which we find in Brazille, Ebene, &c., which, within a very little, concentre by reason of the uniforme course of the sun about them; which is doubtless the cause of their greater dilatation on the South part only with us, where the pores are more open and lesse constipated. The consideration whereof (though nowhere mentioned that I know) made the poet, giving advice concerning transplantations, to caution thus:—

‘Quin etiam Coeli regionem in cortice signant,
Ut quo quæque modo steterit, qua parte calores
Austrinos tulerit, quæ terga obverterit axi,
Restituant: ades in teneris consuescere multum est.’

And though Pliny neglect it as an unnecessary curiosity, I can, by much experience confirme it, that not one tree in 100 would miscarry were it duly observed; for, in some, I have made tryall of it even at Midsummer.”

Coshocton, February 13, 1847.

Probably a portion of our readers will not be able to give a free translation to the above quotations; and will think they might have been omitted: but we preferred to give our correspondent's communication entire.—*Ed.*

ART. II. *Mr. Knight's Seedling Pears.* By the EDITOR.

IT is well known that the late Thomas Andrew Knight, President of the London Horticultural Society, to whose labors the science of Horticulture is so deeply indebted, originated several new fruits, of great excellence, more particularly cherries and pears. Of the former, all the varieties, we believe, are well known in our extensive nursery collections, as well as in most amateur gardens, and specimens of the fruit have, from time to time, been presented for exhibition, fully sustaining their high reputation. But, of the pears, very little information has yet been obtained. It is true they have been described in the catalogues of the London Horticultural Society, but, to American gardens, they are not familiar acquaintances. Recently, nearly or quite all of the varieties have been introduced, but, owing to the errors which occurred in the dissemination of the scions from Mr. Knight's own garden, it is yet somewhat uncertain whether all the kinds are true to name, more particularly that finest of all his seedlings, the Monarch.

In the autumn of 1844, when we visited the garden of the society, at Chiswick, and looked over the collection of pears with Mr. Thompson, we were anxious to obtain all the information in relation to these seedlings, as the high character which Mr. Thompson had given to some of them, rendered them particularly desirable, more especially on account of the hardy character which was ascribed to the varieties, and, consequently, their peculiar adaptation to our climate. The Monarch we were most eager to possess, and when we left, Mr. Thompson placed in our hands *one* specimen out of only three or four, in his possession; this we put into our trunk, and, after journeying to Scotland, and from thence home, occupying about twenty-five days,—we found the pear in good condition, and, upon tasting it, about the middle of November, fully coming up to Mr. Knight's and Mr. Thompson's estimate of the variety.

The Dunmore, we have not yet seen in good perfection. In the autumn of 1845, we had one single pear, which ripened prematurely and dropped off—it promised well: the present year we hope to have many specimens, and fully settle the

question in regard to its qualities. In the mean time, before this and the other sorts come into fruit again, we have thought that the following article, from the *Transactions* of the London Horticultural Society, an expensive work, which does not, probably, find its way into the hands of many, would prove highly interesting to our amateur cultivators, and prepare them somewhat for what they may expect when they shall have specimens from their own trees :—

The following account of some of the new fruits, raised at Downton, has been prepared from descriptions made in the society's garden, by Mr. Robert Thompson, to which notes have been added by Mr. Knight. As these varieties appear of considerable importance, it was considered desirable that an early opportunity should be taken, of making the public acquainted with them.

1. MARCH BERGAMOT PEAR. Fruit middle-size, in form and appearance resembling the Autumn Bergamot. Flesh buttery, a little gritty near the core, rich and excellent. Season, March, or later.

Note.—Owing to its resemblance in form to the Autumn Bergamot, and its ripening chiefly in March (it may be preserved later,) I have named this sort the March Bergamot. The sample sent was not favorable in any respect, the most perfect having been previously eaten, owing to my having erroneously supposed that I had sent a sample of the fruit in autumn. No pains were taken to preserve those that remained, and which, it appears, were found to be excellent, after enduring the carriage to London in the beginning of March. It will be found a much larger and a much better pear when grown in the garden of the society. The fruit is, I think, quite as large as that of an old Autumn Bergamot tree was, which formerly grew in the same soil and climate, and at the distance of a few feet only. Both this variety and the Pengethley Pear, would probably be greatly improved if grown upon a wall, and, so cultivated, I believe both would be found very valuable in cold and unfavorable situations, in which the French and Belgic varieties could not be made to succeed.

2. PENGETHLEY PEAR. Fruit middle-sized, obovate, a little curved at the stalk. Eye small and a little open; stalk about

half an inch in length. Skin yellowish-brown and considerably russeted. Flesh yellowish, juicy and rich : a very good pear. Season, February and March.

Note.—The Pengethley Pear remains in perfection quite as late in the spring as the March Bergamot; and it is larger and more juicy, and its appearance more inviting. Some persons who tasted both in the present spring, thought it the best pear of the two. The very high price of pears in the spring, in the London and other markets, induces me to think that both these varieties might be cultivated with much advantage. This first appeared in the autumn of 1831, and was then very fine. The tree is large, and its growth excessively luxuriant.

3. ROSS PEAR. Fruit large, obovate. Eye open and slightly sunken. Stalk short, moderately thick. Skin yellowish green interspersed with russet. Flesh inclining to yellow, gritty near the core, but rich, juicy, and sugary throughout. Season, January.

Note.—This first appeared in 1832. The fruit was all of large size; and I suspect that, in a more favorable season and better climate, it will become very large. The growth of the original tree is extremely luxuriant.

4. OAKLEY-PARK BERGAMOT. Fruit middle-sized, roundish obovate, resembling a large swan's egg. Eye, partly open, in a regular formed cavity. Stalk an inch and a half in length, rather slender, and a little sunk at its insertion. Skin greenish-yellow, sprinkled with russet. Flesh buttery and melting, rich and excellent. Season, October.

Note.—The tree is of free growth, and has borne in the three last years.

5. BROUGHAM PEAR. Nearly of the middle-size, obovate. Eye open in a regular formed depression. Stalk short. Skin yellowish-russet. Flesh yellowish-white, buttery, a little gritty near the core, sugary and rich. Season, November. This sort is highly deserving of cultivation where flavor rather than size is the principal object.

Note.—This is not a small pear, though the sample sent was small. It is at least as big as the Autumn Bergamot; but I had sent away to several friends the largest and best samples; and I never saw my pears so small as in this year,

(1833,) owing to what cause I do not know ; but probably to the drought in the early part of the summer : I have named it the Brougham pear, a sample sent by me to Lord Brougham having been approved by his lordship.

6. **BRINGWOOD PEAR.** Fruit middle-sized, pyriform. Eye open, with the segments of the calyx prominent. Stalk long and rather slender. Skin yellowish-brown, almost covered with russet. Flesh yellowish-white, a little gritty near the core, the rest buttery, rich, and very excellent, with something of the peculiar flavor of the Monarch Pear. Well deserving of cultivation. Season, end of October till beginning of December.

Note.—This variety did not prove nearly as good in the following year, as in that in which the sample was sent to the society ; it was nevertheless a good pear, though inferior to others of the same season of maturity.

7. **MOCCAS PEAR.** Fruit middle-sized, obovate, with a short stalk. Eye somewhat open and very slightly sunk. Skin brown. Flesh inclining to yellow, melting, juicy, rich, and high flavored, resembling, in this respect, the Monarch Pear, and almost equal to that very excellent variety. Season, December.

Note.—This is, I think, a very fine pear, but the sample sent was not equal in quality to the former produce. It is somewhat singular that all my pears ripened much later, and less perfectly in the last (1831,) than in the three preceding cold and wet seasons : probably owing to the paralyzing effects of the very severe frost of the 7th of May, which destroyed almost all the blossoms of the pears and apples in the surrounding orchards. Tree of excessively rapid growth, and very productive of blossom, which I have reason to believe capable of bearing, without injury, very unfavorable weather.

8. **BROOM-PARK PEAR.** Fruit nearly middle-sized, roundish. Eye in a moderate-sized hollow. Stalk about an inch in length, moderately thick. Skin entirely covered with cinnamon-colored russet. Flesh yellowish, melting, juicy, with something of a melon flavor, sugary and rich. Its very peculiar flavor may be said to partake of the melon and pine-apple. Season, January. A sort highly deserving of cultivation.

Note.—The singular mixture of flavor in this pear was

noticed here as well as in London. The tree is fine, and has borne well in two seasons in which alone its fruit has existed.

9. CROFT-CASTLE PEAR. Fruit middle-sized, oval. Eye open in a shallow depression, with the segments of the calyx reclining. Stalk about an inch and a half in length, rather slender, and somewhat obliquely inserted. Skin pale yellow, not glossy, but rough with elevated dots, and partially russeted. Flesh whitish, a little gritty, but melting and very juicy, rich and sugary. An excellent pear. Season, October.

Note.—A variety of dwarfish growth, but very productive of fruit.

10. EYEWOOD PEAR. In shape and size very similar to an Autumn Bergamot, but of a deeper cinnamon russet color. Flesh yellowish-white, melting, buttery, juicy, and very high-flavored. It is doubtful whether it would be exceeded by Gansel's Bergamot in a better season for standards than that of 1831, when the above description was made. Season, October or November.

Note.—In 1833, when other varieties of pears did not attain their usual excellence in Herefordshire, this was found to be very good. The tree is of a very free growth, and has borne well during the last four years, the period commencing with its existence, as regards a bearing state. The sample sent was below the average size.

11. DUNMORE PEAR. Fruit about the size of a Brown Beurré, obovate. Eye open, slightly depressed. Stalk about an inch in length, of medium thickness, rather fleshy at its junction. Skin brownish-red next the sun; yellowish with a scattering of brown where shaded. Flesh yellowish-white, melting and extremely juicy, sugary and rich; a little gritty near the core, but on the whole a most excellent pear. Season, end of September or beginning of October.

Note.—This variety is as large, I think, as the Brown Beurré, and I have never tasted the last mentioned sort better than the Dunmore. When it has remained to ripen and grow yellow upon the tree, I have thought it the most melting and best pear of its early season. The birds are apt to destroy most of the crop prematurely. The tree is fine and perfectly healthy. Grafts of it, which were inserted into stocks two years only ago, afforded an abundant blossom in the last

spring, and are now bearing fruit ; though the weather in part of the spring was extremely unfavorable, and destroyed every blossom of the more delicate varieties. The trees are of a very rapid growth, and the varieties appear to be extremely well adapted to cold and late situations.

12. **MONARCH PEAR.** Fruit of large size, obovate. The stalk is, in all cases, remarkably short and thick. The eye is open, in a shallow depression. The general color is yellowish-brown, tinged with red next the sun, and everywhere interspersed with roundish pale gray flecks. Flesh yellowish, melting, buttery, and rich ; slightly musky, but not disagreeably so, and this is the less perceptible in a dryer season than the last. The tree grows vigorously, and is a most abundant bearer as a standard, the fruit from which is much higher flavored than from a wall. January is its season for becoming fit for use.

Note.—I had this year (1834,) a sufficient quantity of the Monarch Pear to enable me to ascertain the specific gravity of its juice, which is 1096 ; that is, fifteen above the Stire Apple, and about that which a dissolution of 2 lbs. 6 oz. of sugar would give to 8 lbs. of water. I doubt whether the specific gravity of the juice of the grapes, which afford the best French wines, be much greater, and the taste and flavor of the expressed juice of the Monarch Pear appear to me to be very delightful. I am planting it very largely for Perry, in perfect confidence that sixpence per imperial quart of its expressed juice will afford a very high remunerating price. I imagined, till the present season, that the excessively vigorous growth of the variety, would render it unproductive as a wall-tree, but grafts inserted three years ago are now bearing fruit, and have formed a most abundant blossom for the next year.

From these descriptions, and the notes thereto, the Pomologist may form a good estimate of Mr. Knight's seedlings. Of the twelve, only five or six have yet fruited in American collections ; one of these was the Dunmore, which Mr. Knight thinks fully equal to the Brown Beurré.

But the Monarch, which Mr. Knight so named, (in honor of William the IVth,) because he was "under conviction that, for the climate of England, it stands without an equal," has

not yet fruited—that is the *true* Monarch. Some two or three spurious varieties sold under this name, have borne a few pears, sufficient to decide their utter worthlessness, and it yet remains a matter of doubt, whether the *true* variety has been introduced. We have reason to believe, that it has not, only in one or two instances, and that nearly all the trees which have been disseminated are incorrect. Our principal reasons are, that the trees sold for the Monarch, are of weak and slender growth, straggling habit, and with dark-colored wood. Now it will be noted that Mr. Knight says it is of “excessively vigorous growth,” so much so, that he feared it would “render it unproductive; but grafts inserted three years are now bearing fruit, and have formed abundant blossoms for next year.” Mr. Thompson states that the true Monarch may be known from the spurious one, by its “yellowish wood.” These characteristics at once settle the question, that those trees with small wood and slender growth and dark-colored shoots, *are not true*.

We saw the tree in bearing in the society’s garden; and from a nursery within three miles of Chiswick, we purchased trees, grown from scions received from Mr. Thompson: and they correspond in every particular with Messrs. Knight’s and Thompson’s descriptions. The trees are exceedingly vigorous, of upright habit, and with yellow or pale yellowish olive-colored wood: They will, we hope, produce a few specimens this year, when we trust we may have the opportunity to show a pear, whose reputation ranks so high, but which, from a series of errors originating with Mr. Knight’s gardener, has for so long time remained unknown to cultivators.

ART. III. *A Way to keep a Record of the Place of every Tree in an Orchard, by which Labels are dispensed with.* By T. S. HUMRICKHOUSE, Coshocton, Ohio.

HAVING observed that much has been lately said about labels for fruit trees, I send you herewith a map or plot of a section of my experimental orchard on Whiteyes Creek in Coshocton County, Ohio, comprising about the one fourth of it,

to show the manner in which I keep the record of the place of each tree. The plat and list subjoined will sufficiently explain each other, and the whole plan—a plan which may be carried out to any extent. You will perceive that, to find a tree of any given variety in the orchard, you look at the number placed before its name in the list, and find the corresponding number on the plat. The number set after the name in the list denotes the number of trees of that variety :—

o o o o o o o o o o o
56 55 55 55 55 54 54 53 52 52 52

o o o o o o o o o o o
46 47 47 48 48 49 49 49 49 50 51

o o o o o o o o o o o
45 44 44 43 43 42 42 41 41 40 40

o o o o o o o o o o o
34 35 35 36 36 37 37 38 38 39 39

o o o o o o o o o o o
33 33 32 32 32 31 31 31 31 30 29

o o o o o o o o o o o
24 24 25 25 26 26 27 27 28 28 28

o o o o o o o o o o o
1 23 21 20 22 21 20 19 18 17 16

o o o o o o o o o o o
1 15 15 14 14 13 12 12 11 11 10

No.	Trees.	No.	Trees.
1. Hubbardston Nonsuch,	2	19. Catharine Pear,	1
10. Zoar Phœnix,	1	20. Pound Pear,	2
11. Red Everlasting,	2	21. Jas. Taylor's Pear,	2
12. Cathead,	2	22. Borsdorffer,	1
13. C. Down's large fall red,	1	23. Black Apple,	1
14. Blickensderffer,	2	24. Sops of Wine,	2
15. Pickman Pippin,	2	25. Knight's Grange,	2
16. Poland Red Winter,	1	26. Romankirgger,	2
17. Seckel Pear,	1	27. Newtown Spitzenberg,	2
18. Summer Golden Pippin,	1	28. Summer Queen,	3

No.	Trees.	No.	Trees.
29. Pound Royal, . . .	1	43. Zoar Winter Sweet, .	2
30. Juneating, . . .	1	44. Transparent, . . .	2
31. Flushing Spitzenberg,	4	45. Hugh's Golden Pippin,	1
32. Grey French Reinette,	3	46. Sugar Loaf Pippin, .	1
33. Van Mons Reinette, .	2	47. Crimson Nonpareil, .	2
34. Cooper's Russett, . .	1	48. Zoar Gilliflower, . .	2
35. Sweet Vandervere, . .	2	49. Green Newtown Pippin,	4
36. Blenheim Orange, . .	2	50. Dumpling Myers, . .	1
37. Zoar White Spitzenb'g,	2	51. Laners Sweet, . . .	1
38. Kirk's Lord Nelson, .	2	52. Summer Rose, . . .	3
39. Zoar large Wintersweet,	2	53. Zoar Pippin, . . .	1
40. Court of Wyke, . . .	2	54. English Codlin, . . .	2
41. Foster's largestrip'd fall,	2	55. Zimmetartiger, . . .	4
42. Zoar Striped Fall, . .	2	56. W. Robinson's fall pip'n,	1

Any man, who plants an orchard, can easily make a plat of it, with a list of the varieties, and their places and the corresponding numbers attached, in the same manner as in the foregoing. Or, if he likes it better, he can make his plat upon a scale large enough to be enabled to write the name of each kind in full opposite its place, as the names of towns are upon maps. The following will illustrate this mode:—

^o Baldwin	^o Wine	^o Winesap	^o Murphy	^o Minister
^o Jonathan	^o Domine	^o Rambo	^o Detroit	^o Chandler
^o Gravenstein	^o Dyer	^o Oslin	^o Benoni	^o Swaar

After all, perhaps this will be nothing new to your readers. It is not original with me; nor can I tell whence I derived it. Of course, it will be understood that the top of the map should be north, as mine is, or that the points of the compass should be in some other way ascertained.

Should any of your Boston friends take a fancy to the orchard, of which the section before described is a part, I will sell the farm upon which it is situated, containing one hundred and eighty-five acres of good land without a stone upon

it as big as your fist, at the exceedingly low price, as they would consider it, of four thousand dollars. But, as they can buy, in this neighborhood, any quantity of land equally good and well improved, but without the orchard, at much lower rates, I do not think any of them will be found to take me up, so that I may rest easy. These last two sentences, you will say, are not very germane to the subject.

Coshocton, Ohio, February 5th, 1847.

ART. IV. *Descriptions and Engravings of Three New Apples.* By the EDITOR.

AT page 70, we commenced a series of articles in which it is our object to describe and figure all the fine varieties of apples which appear deserving of cultivation, in the same manner in which we have figured upwards of seventy-five varieties of pears. The apple is the great staple fruit of our country, and it is to be regretted that so little has been done to make known the best kinds, or to set aright the numerous errors in nomenclature which abound in our Catalogues and Treatises on Fruit.

To attempt this object will be our endeavor in this article : all the new and choice kinds which are, from time to time, brought into notice, will be accurately described and figured, while, at the same time, we shall not neglect a full account of the older and proved sorts, giving the synonyms under which many of them are cultivated, and other particulars relative to their growth, the soils to which they are best adapted, &c.

We shall continue the numeral order of the varieties, commencing with the article referred to.

IV. EARLY JOE.

In our last volume, (XII, p. 474,) under our Pomological Notices, we briefly described this new apple, (*fig. 15*,) and we have but little to add now to the account we then gave of it, except a more full description. Mr. Bissell of Rochester, who sent us some fine specimens, gives us the following par-

ticulars:—"Some of the delicious seedling apples of the Valley of the Genesec have been extensively noticed and dissem-

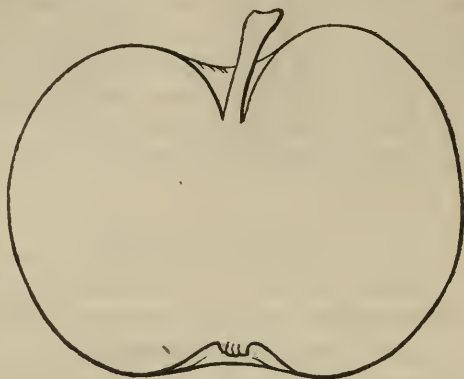


Fig. 15. Early Joe.

inated: a few yet remain to enrich the Pomology of less favored regions among us, at the head of which should stand the Early Joe. We send you herewith some specimens of fruit of the ordinary size for your opinion and notice, should you think it worthy. When neglected, the tree bears every other year enormous crops, of the size and quality of these, but, with proper care in trimming out, they will attain to nearly double the size. The tree grows slowly; the wood is slim; the bark dark-colored, and the green of the foliage is deep and rich. It was called the Early Joe, because a fellow named Joe for some time stole the apples early in the morning, before the family that owned the orchard were up, and only desisted after the hired man had cut 'Early Joe' in the bark of every tree. The parent tree grew in the orchard of Mr. Oliver Chapin of Bloomfield, Ontario County, in the same orchard with the Northern Spy, and is, we believe, still alive." To this we have only to add, that the variety is really a very good fruit; its only objection, if it may be called one, to its ranking among the best fruits, is its rather small size. It is a handsome apple, with a deep red skin and a very tender flesh.

Size, medium, about two inches and a half broad, and two deep: *Form*, oblate, slightly rounding towards the crown: *Skin*, smooth, dull yellow, nearly covered with distinct stripes of dark purplish red, interspersed with numerous whitish

specks: *Stem*, medium length, about half an inch, rather slender, and deeply inserted in a round, narrowed cavity: *Eye*, medium size, closed, and considerably sunk in an open, rather broad hollow; calyx, short: *Flesh*, white, slightly tinged with pink, fine, and very tender: *Juice*, plentiful, pleasantly acid and good: *Core*, rather large. Ripe in August, and keeps two or three weeks.

V. FALL JENNETTING.

Another variety received from the same source as the above. It was brought into the vicinity of Rochester about twenty years ago, from Athens, on the Hudson, but it does not appear to be described by any of our writers on Fruits. Mr. Bissell states that the trees grow very rapidly, and bear every alternate year enormously. The general appearance of the Fall Jennetting, (*fig. 16,*) is much like the Rhode Island Greening;

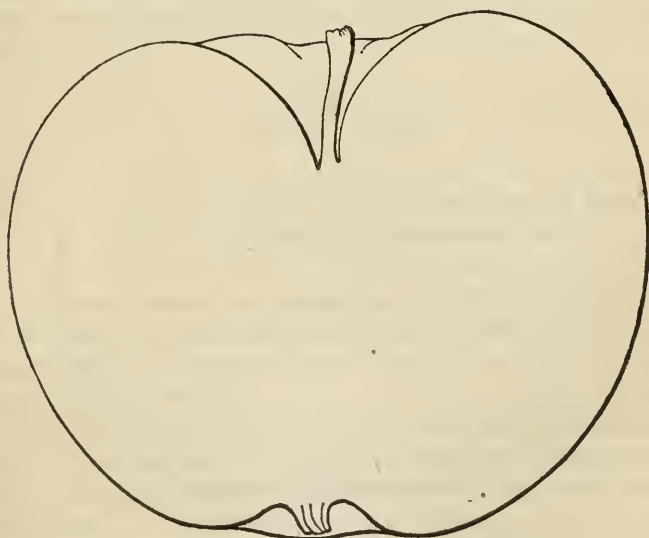


Fig. 16. Fall Jennetting.

but it is more regular in its outline, broader at the base, and narrows more to the crown. It appears to be a new and very desirable autumn apple.

Size, large, about three and a half inches broad, and three deep : *Form*, roundish, flattened, somewhat ribbed at the base, and narrowing to the eye : *Skin*, fair, smooth, pale greenish yellow, broadly tinged with deep blush on the sunny side, and thinly and irregularly sprinkled with dark russety specks : *Stem*, short, about half an inch, slender, and deeply inserted in a rather contracted, funnel-shaped cavity : *Eye*, small, closed, and moderately sunk in a small, round basin : segments of the calyx, long, twisted : *Flesh*, yellowish white, fine, very tender : *Juice*, abundant, pleasant and sprightly, with a fine perfume : *Core*, small, hollow : *Seeds*, small, angular, full. Ripe in November.

VI. MARSTON'S RED WINTER. Kenrick's *Amer. Orchardist*.

Mr. Kenrick, in his *American Orchardist*, briefly describes this new apple (*fig. 17*). It originated in Greenland, N. H.,

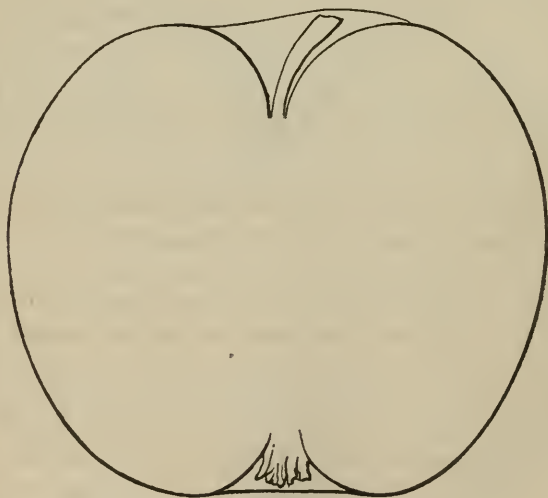


Fig. 17. Marston's Red Winter.

and fine specimens were sent us in the winter of 1845 and '46, by Mr. Norton of that place ; those of the last year were not equal in size to those of the year previous, owing to the very dry summer, but they were equally high-colored and beautiful. At first sight, they somewhat resemble the Baldwin, but upon

more particular notice, the difference, both in form and color, is quite apparent: there is less yellow than in the Baldwin, and the skin has a smooth and more glossy surface. In form, it is more oval than the Baldwin, narrowing little towards each end. The flesh is more tender, and not so crisp as the Baldwin. It deserves to rank among our best winter varieties. Tree vigorous and productive.

Size, large, about three inches broad, and two and three quarters deep: *Form*, roundish oval, regular, slightly narrowing towards each end: *Skin*, fair, smooth, shining, yellow in the shade, bright red in the sun, and nearly covered with stripes of brilliant crimson, with a patch of russet around the stem: *Stem*, short, about half an inch in length, slender, obliquely and rather deeply inserted in a narrow, contracted cavity: *Eye*, medium size, partially open, and moderately sunk in a round, open, smooth, and abruptly depressed basin: *Flesh*, yellowish, fine, soft, and very tender: *Juice*, plentiful, rich, and high flavored: *Core*, medium size, rather close: *Seeds*, medium size, dark brown. Ripe in January, and keeps till April.

ART. V. *A Brief Account of Three Varieties of Apples.* By
ASAHEL FOOTE, Esq., Williamstown, Mass.

I HEREWITH send you specimens of three varieties of the Apple,—known here as the Congress, the Redstreak, and the Vanderspeigle. I name them in the order of their size, beginning with the largest.

The two former have been in cultivation here for fifty years: the latter is understood to have originated, within that period, on the grounds of John Vanderspeigle, Esq., in Lansingburgh, New York.

The Congress Apple (of this neighborhood,) is a common and well known variety in Cayuga County, New York, and is probably the apple described by Downing, as the Twenty Ounce, or Cayuga Redstreak. It is in high estimation here, both as a cooking and eating apple, and, in our markets,

takes precedence even of the R. I. Greening, and *Æsopus Spitzenberg*. The tree is of medium vigor, but a great and constant bearer. The size of the fruit may be judged of from the fact, that *seventy-two apples, taken seriatim*, last autumn, *measured a bushel*. Season November to March. The specimens now presented are scarcely medium.

The Redstreak, (*fig. 18*,) is also a winter fruit, of large size, and high reputation, but very different in its characteristics from the former. Considering its excellence, I can hard-

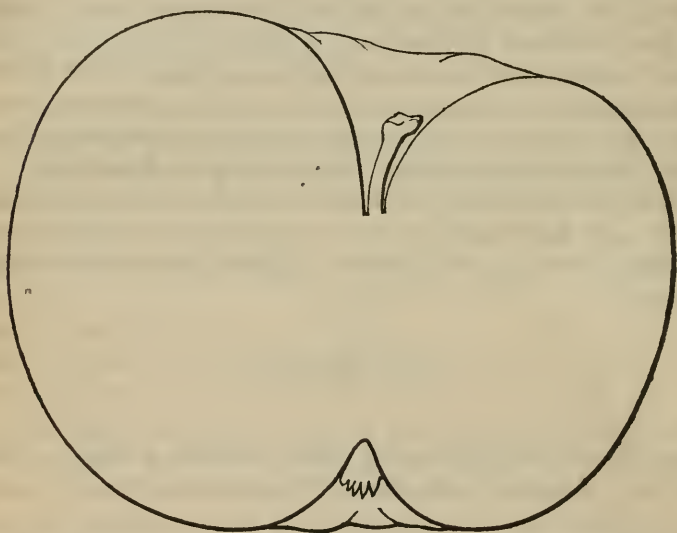


Fig. 18. Redstreak.

ly suppose it to be wholly unknown to our cultivators; yet my search has been in vain to find its accurate portrait in any of our pomological authors. The trees of this variety attain a large size, and produce abundantly in alternate years. On old subjects, and under poor cultivation, a rather large percentage of the fruit will be imperfect; but, as a compensation for this, the refuse yields a finer quality of cider and *vinegar* than any other variety grown in this section. Season, Dec. to March. The specimens are above an average, but not of the largest size.

The Vanderspeigle, (not heretofore introduced to the public, I think,) has been in cultivation here some years, and is highly esteemed by such as prefer a fruit of rather unusual tartness. The trees are strong growers, and constant and abundant bearers, and the fruit is uncommonly fair and perfect, and keeps as well as either of the preceding. From the figure, color, size, and flavor of this apple, I have little doubt that it originated from a seed of the old "Red and Green *Seek-no-further*." It is, however, superior to that variety in several respects,—being more prolific—more juicy—better for cooking—and a longer keeper. I think it well worthy of cultivation.

I have purposely omitted saying any thing of the form, color, consistence and flavor of these apples, in order that these particulars (with drawings) might be supplied by yourself, in case you deem them worthy of notice in your Magazine.

I am now engaged in investigating the history of the Congress and Redstreak, and, if my inquiries lead to any satisfactory results, you shall be apprised of them at an early day.

P. S. Having a convenient opportunity, I send you three more Redstreaks,—a Pound Royal,—a Swaar,—and a Green Newtown Pippin. The Pippin is the smallest, the Swaar, yellow—the Pound Royal, conical and irregular. I send these as fair specimens of those varieties here, under ordinary cultivation which, I might add with too much truth, is no cultivation at all. The Pound Royal varies much in shape, and this specimen is among the most irregular. This and the Pippin have much more color than is usual.

The Redstreaks now sent are fair specimens for color, and of rather unusual size. To what I said before respecting this apple, I can now add, that it is highly esteemed for cooking, and that the trees are among our *very largest growers*.

Further investigation has pretty fully convinced me that this is the true Wine Apple, best described by Floy, in Lindley's *Guide to the Orchard*.

The Pippin and Swaar are with us but moderate growers, and the crops of fruit not heavy. The Pound Royal trees are large, and fine bearers, and the fruit is much esteemed.

Williamstown, Feb. 27, 1847.

We are greatly indebted to our correspondent, Mr. Foote, for the above communication, and also for the specimens of fruit which accompanied his letter. But, unfortunately for us, those which were forwarded with the first letter, by some mistake, fell into the hands of the Massachusetts Horticultural Society, and, although we had the pleasure of tasting them, we had no opportunity to make drawings or accurate descriptions; consequently, we are unable to say much respecting them, other than that the Congress, so called, is undoubtedly the same as the Twenty Ounce, which Mr. Downing has described under the latter name, from our account of it in the Magazine (Vol. X. p. 210). The specimens, though overripe, confirmed our good opinion of this large and superior fruit. The Vanderspeigle seemed to somewhat resemble the old Pearmain.

The Redstreak is an apple of large size and much beauty,—indeed rather too large to become a popular fruit—and possesses a rich, sprightly and aromatic flavor; and to us it is quite new: after carefully examining the specimens, we compared them with several varieties described by *Coxe*, and though the engraving of the Wine Apple of the latter does not appear quite flat enough, the description of this author answers exceedingly well for the specimens of the Red Streak; and we agree with our correspondent that the Redstreak is the Wine Apple, first described by *Coxe*, and his description adopted by Messrs. Floy and Downing. We add our own description from the specimens received:—

Fruit, large, about three and a half inches broad, and two and three quarters, deep: *Form*, roundish oblate, flattened at both ends, and ribbed at the base: *Skin*, fair, smooth, with a yellow ground, marked with bright red on the sunny side, and splashed with broken stripes of deep crimson, interspersed with a few rather large russet specks: *Stem*, very short, about quarter of an inch, slender and deeply inserted in a large, wide, open cavity: *Eye*, small, open and moderately sunk in a medium sized and ribbed basin; segments of the calyx short: *Flesh*, yellowish-white, rather fine, breaking and tender: *Juice*, abundant, sprightly, and vinous, with a high aromatic flavor: *Core*, medium size, very broad, open: *Seeds*, medium size, plump. Ripe in December and keeps till March.

The nomenclature of our apples is in great confusion, and we think it will be almost impossible to do much towards clearing it up, until the numerous varieties can be collected together, the trees brought into bearing, their characteristics studied, and a careful examination made of the fruit. This we hope to do, having upwards of two hundred sorts, which will soon enable us to commence our labors.—*Ed.*

ART. VI. *On the Cultivation and Treatment of Cape Heaths (Ericas).* By JOHN CADNESS, Gardener to Mr. J. L. L. F. Warren, Brighton.

I SEND you an article upon the cultivation of that splendid, but, I am sorry to say, much neglected tribe of plants, Cape Heaths, a genus, all the species of which are eminently beautiful and worthy the most assiduous cultivation, if you should think my remarks worth a place in your magazine.

Heaths are all of them especial favorites of mine, and wherever I have had opportunity, I have paid considerable attention to their cultivation, and I am greatly surprised that, when such good specimens of other green-house plants are grown in the neighborhood and exhibited in Boston, no attempt has been made to grow a collection of the finer varieties of this plant: there is, I know, some difficulty in managing some of the best kinds, but I have not the least doubt, that, if proper provision were made for them, and proper care bestowed upon them, they could be sufficiently well grown to make them one of the greatest ornaments of the green-house. The great difficulty in cultivating these plants with success, is the extreme cold of winter and the extreme heat of summer; the consequence of which is, in the former case, the plants are exposed to a great degree of fire heat, and a too warm and variable atmosphere at a season when they should be kept cool and perfectly at rest; for they, like all other plants, must have their dormant season or winter; for they can never be expected to flower finely and as they should do, when they are growing more or less the year round. But in order to give

them proper treatment, a house should be devoted entirely to them, for they cannot be grown to perfection in a mixed green-house ; and I am convinced, they would amply repay for all the extra expense and trouble they require. All that is necessary in winter, is merely to keep the frost from them, and most of them, if they have not been subjected to too much fire heat, will bear several degrees of frost. One cause of heaths not flowering well, *in fact, the main cause*, is because they are kept too warm in winter, for if they do not experience a season of rest, they cannot have time to form and perfect their flower buds, which they should do at this time : but, instead, they are excited into an early, weak, and unprofitable growth, and such a course of treatment soon renders the plant worthless. The next thing to be observed is to give them, at every opportunity, a free circulation of air, both in the winter, and in their growing season ; for heaths will not thrive well in a close confined atmosphere ; and, if they are drawn up, and weak, they will but poorly bear the heat of summer which is the most trying time for them.

In summer, I believe it is generally thought necessary to shade heaths a great deal. I have seen them hid away under trees and stowed in frames, and shaded until they could not bear a ray of light to fall upon them. They soon become weak and sickly, and suffer far more than by being housed in winter, if they do not perish altogether, which is generally the case. My experience has taught me, that they will, if placed in proper circumstances, bear the sun a great deal better than is generally supposed ; in fact, *naturally*, the heath is never found growing in shaded places, but the contrary : they are always found growing on hill sides and open plains, and, allowing that they have been made more tender by artificial treatment generation after generation, still in this, as in every other similar case, the nearer we follow nature the better shall we succeed. For the last two years, I have never made a practice of shading heaths at all in summer, only in extreme hot days. My summer management is this : as soon as the plants can be trusted in a cold frame, I remove the plants from the green-house. I choose, for the frame, an open situation, giving it a northern aspect. I then plunge the pots to the rim in coal ashes at such a distance from each other as to allow a

little for growth, but still so as to shade each other some. My object is to keep the roots moist and cool, and, whenever by their growth,*which always happens, they begin to crowd each other, I take them up and replunge them at suitable distances again; using the lights until all danger of frost is over. By that time, by giving a plentiful supply of air daily, and gradually inuring the plants to the open air, I dispense with the use of them altogether, except to protect them from heavy rains and stormy weather. In this manner, I keep them until it is quite necessary to remove them to the greenhouse in the fall. I am always particularly anxious to keep them in the frames as long as possible, so that they feel the effects of cold, (but not frost,) and their growth is entirely stopped, even if it be necessary to protect the frames by covering.

By this treatment, I find that the plants acquire a hardy, robust habit, and are more easily kept over winter; last summer, I kept over 300 one year old plants in this manner, and they were never shaded the hottest day, and I never lost a single plant, and by plunging the pots, the young roots are protected and kept moist and cool; whereas, when the pot is exposed to the action of the sun, the young roots are scorched, then the plant begins to suffer and is unable to bear the sun: they also require less water, which is a great thing, as too frequent waterings are hurtful to them. Great care is necessary that they shall not suffer for want of water, or that they be over watered; in either case, they will suffer more or less, although they may not show it just at the time.

It will be seen, then, that, in order to grow these plants successfully, they must be placed in those circumstances, where they can acquire a bushy and healthy, robust habit; this can be effected only by a free exposure to sun-light and air at all seasons, and due regard being paid to their period of rest or winter. A great deal also will depend upon the system of potting which is followed, for this is a very important part of their management, and requires both care and judgment. In order to have the plants flower finely, they must have well filled their pots with roots before their season of rest commences; it is a bad practice to over-pot them at any time, particularly when young; I like, rather, to shift them the oftener,

never by any means giving them more than a size larger pot at a shift. Give them plenty of drainage, always placing a portion of coarse fibrous peat or moss over the crocks, to prevent the soil washing through them, and taking care to place the neck of the plant high up in the pot, so as to give a fall from the stem to the rim; this precaution, with good drainage, will prevent them from damping off at the neck, which they are very liable to do when kept too damp or over-watered, if potted too low. In repotting large specimens, it is a good plan, where they require a large pot, to place a pot reversed in the bottom of the large one, and fill nearly to the top with crocks and coarse material; for heaths do not require a deep soil, and it will give a better drainage.

The soil most suitable for heaths, is a fibrous sandy peat, which is rather difficult to procure in this neighborhood; at least I have found it so. The compost I have generally used has been well decomposed leaf-mould, with a portion of the most peaty soil I could procure, using more or less of the peat, according to its quality; sometimes I have used nothing but leaf-mould, mixing equal parts of white sand, and rather coarse river or brook sand; all the coarse fibrous lumps should be chopped small and retained in the compost, in order to make the soil porous. The soil by no means should ever be sifted for heaths, not even for young plants, as it becomes too compact and heavy; the best sand for heaths is freestone sand, and a good portion of it used in small lumps, about the size, and some larger, than peas; it is also the best for propagating when it can be procured.

As to propagating, I need say but little upon this head, as most of the varieties are increased with little difficulty; most of them strike well from cuttings, made of half-ripened young wood; and they can be propagated at any season that the wood is in that state. They should be covered with a bell glass, and be carefully watered, keeping them in a cool and shaded situation. Some of the varieties are more difficult to strike than others, and I find some will root better if the wood is perfectly ripe; but it requires a greater length of time and they are not so liable to damp off; then again, there are some kinds that I have been unsuccessful with. I have tried cuttings taken from the plant just at the time that it is beginning

to grow, and this way I have always succeeded with the most difficult kinds; but they require to be kept very close for a great length of time. I send you a list of some of the best varieties:—

Beaumontiana,	coventryana,
Willmoreana,	nigricans,
baccans,	Lambertiana,
hyemalis,	grandinosa,
tricolor,	a'rdens superbus,
Hartnellii,	persoluta,
ventricosa superba,	Aitonia,
Bowieana,	prægnans,
Niveniana,	Rollissonii,
Bedfordiana,	vestita alba,
pannosa,	Archeriana,
vestita coccinea,	bicolor.

Nonantum Vale Gardens, March, 1847.

ART. VII. *Notice of Some of the Mosses of New England.*

By WM. OAKES, Ipswich, Mass.

MOSSSES OF THE WHITE MOUNTAINS.

THE alpine region of the White Mountains, though a perfect garden of Lichens, is exceedingly unfavorable to Mosses, from the great and sudden changes of temperature, but principally from the great dryness which often prevails for several weeks. In the forests at the sides and base of the mountains are found many of the common mosses of New England, with others which belong to its northern regions. Their number, however, does not appear to be very great, though many of the species grow in great luxuriance and profusion. The following list contains most of the interesting species, both of the alpine region and the base. Specimens of many of these have already been published in the magnificent volumes of the *Musci Alleghanienses* of Mr. Sullivan, our excellent American Muscologist.

Hypnum denticulatum, L. Alpine. Base.

stramineum, Dicks. Sullivan, Musc. Allegh. 38. Alpine. Base.

molle, Dicks. Alpine.

— var. alpestre. H. alpestre, Swartz. Base.

- Hy'pnum umbràtum*, *Ehr.* Musc. Allegh. 2. Base. Alpine.
 refléxum, *Weber & Mohr.* Base.
 sùbtile, *Bruch. & Sch.* Leskea sub. *Hedw.* Base.
 rùgòsum, *Hedw.* Musc. Allegh. 13. Alpine.
 scorpioides, *L.* Musc. Allegh. 27. Alpine.
 uncinàtum, *Hedw.* Musc. Allegh. 24. Base. Alpine.
 aduncum, *L.* Alpine. Base.
 fluitans, *L.* Alpine.
- Climàcium dendroides*, *Mohr.* The European variety. Base.
Anacàmpodon splachnoides, *Brid.* Musc. Allegh. 82. Base.
Ery'um capillàre, *L.* var. cochlearifolium. Base.
 turbinàtum, *Swartz.* Alpine.
 Duvàlii? *Voit.* Alpine.
 Wahlenbèrgii, *Schwaegr.* Alpine.
- Bartràmia ithyphy'lla*, *Brid.* Alpine.
 conóstoma, *Br. & Sch.* Musc. Alleg. 120. Conóstomum boreàle, *Swartz.*
Splàchnum mnioides, *L.* Alpine. Rare. Mr Greene found it many years ago on the summit of Mount Washington; I have only found it in a single spot on Mount Franklin.
 angustàtum, *Linn. fil.* Base. I found only a single tuft with abundant fruit on the bones of some small animal.
- Poly'trichum juniperinum*, *Willd.* var. alpèstre. Musc. All. 113. Alpine.
 alpinum, *L.* Alpine. Base.
 urnigerum, *Menzies.* Musc. All. 114. Base.
 — var. capillàre. Pogonatum cap. *Brid.* Musc. All. 115. Alpine.
- Orthótrichum Ludwigii*, *Brid.* Base.
 speciosum, *Nees.* Base.
- Zy'godon Lappónicus*, *Br. & Sch.* Gymnóstomum *Lapp. Hedw.* Alpine.
Racomitrium Sudéticum, *Dry'ptodon* Sud. Musc. A. 134. Alpine. Base.
 microcárpon, *Brid.* Musc. All. 133. Alpine. Base.
 lanuginòsum, *Brid.* Musc. All. 131. Alpine.
 fasciculàre, *Brid.* Musc. All. 132. Base. Alpine.
 aciculàre, *Brid.* Base.
- Grimmia obtùsa*, *Schwaegr.* Alpine.
 apocárpa, *Hedw.* var. rivularis. Alpine.
 confèrta, *Funk.* Musc. All. 139. On the sides below the alpine region.
- Anictangium ciliàtum*, *Hedw.* The common European variety. In bare gravelly soil. Base.
- Trichóstomum vaginans*, *Sullivant.* Musc. All. 176. Alpine.
Dicrànum Schradèri, *Web. & Mohr.* Musc. All. 163. Alpine.
 elongàtum, *Schleich.* Alpine.
 fulvellum, *Smith.* Alpine.
- Weissia striàta*, *Hook. & Tayl.* Musc. All. 143. Alpine. Base.
Sphàgnum recurvum, *Pal. de B.* Musc. All. 206. Base.
Andræa rupèstris, *Hedw.* Musc. All. 215. Alpine. Base.
 crassinèrvia, *Bruch.* Alpine. Base.

Other Mosses at the Base are *Hy'pnum Schrebèri*, (also alpine,) *cordifolium*, *spléndens*, (also alpine,) *tamariscinum*, *minùtulum*, *pseùdo-plumòsum*, *salebròsum*, *ruscifolium*, *triquètrum*, *chrysophy'llum*, *confèrtum*, *hispidulum*, *recùrvans*, *Crista-castrénsis*, *Haldiànum*, &c. ; *Néckera pennàta*, most abundant, and fruiting finely on the trunks of the trees ; *Néckera viticulòsa*, very abundant, but rarely fruiting ; *Néckera sericea*, *Pterigynàndrum hirtèllum* and *intricàtum*, *Leucodon bráchypus*, *Mnium punctàtum*, most abundant and fine, both at the base and alpine ; *Mnium affìne* and *hòrnum*, *Bry'um ròseum*, *ventricòsum*, *nùtans*, *cespitòsum*, *Aulacòmniòn palùstre*, *Bartrámia pomifòrmis*, var. *crispa*, *Bartrámia fontana*, most luxuriant, and sometimes a foot long ; *Funària hygrométrica*, *Poly'trichum piliferum*, *juni-pirenum*, *commùne*, *formòsum*, *brevicàule*, *undulàtum*, *Diphy'seium foliòsum*, abundant and fine, *Orthòtrichum crispum*, *Hutchinsiae*, *strangulàtum*, *Drummòndia clavellàta*, *Tétraphis pellùcida*, *Fontinàlis antipyrética* and *squamòsa*, fruiting abundantly, *Grim'mia apocárpa*, *Anictàngium ciliàtum*, (the common American rock variety,) *Trichòstomum tòrtile*, *Dicrànum glaucum*, *undulàtum*, *scopàrium*, *congèstum*, *heteromàllum*, (also alpine,) *Ceràtodon purpùreus*, *Sphágnum cymbifolium*, *acutifolium* and *squarròsum*, fruiting most luxuriantly, &c.

Of the above, *Hy'pnum spléndens* and *Crista-castrénsis* are most abundant, the former fruiting finely in many places, and the latter almost every where covering the ground, and the fallen trunks in the forest, and fruiting most abundantly.

JUNGERMANNIACEÆ OF THE WHITE MOUNTAINS.

(Species of *Jungermànnia* of Linn. Hooker, &c.)

Plagiòchila porelloides, *Lindenb. Musc. All. 220. Base.*

spinulòsa, *Nees. & Mont. Musc. All. 219, Base.*

Scapània undulàta, *Nees.*

nemoròsa, *Nees. Base. Alpine.*

Jungermànnia obtusifòlia, *Hook. Musc. All. 230.*

barbàta, *Schreb. var. quinquedentata. Base.*

var. Floerkii. Alpine.

setifòrmis, *Ehr. Musc. All. 238. Alpine.*

inflàta, *Huds. Alpine.*

Taylòri, *Hook. Musc. All. 227. Alpine. Base.*

Schradèri, *Mart. Musc. All. 235. Base. Alpine.*

ventricòsa, *Dicks. Base.*

curvifòlia, *Dicks. Musc. All. 242.*

Michauxii, *Weber. Musc. All. 237. Base. Alpine.*

pùmila? *With. Base.*

divaricàta, *Smith. var. rubricaulis, Nees. Base.*

bicuspidàta, *L. Musc. All. 241. Base.*

cònnivens, *Dicks. Musc. All. 246. Base. Alpine.*

trichophy'lla, *L. Musc. All. 245. Base.*

- Gymnomitrium concinnatum*, *Corda*. *Musc. All.* 217. Alpine.
Sarcoscyphus Ehrhárti, *Corda*. *Musc. All.* 216. Base. Alpine.
Trichocolea tomentella, *Nees*. *Musc. All.* 255. Base.
Ptilidium ciliare, *Nees*. *Musc. All.* 256.
Radula pállens, *Sullivant*, *Musc. All.* 261. Base.
Madotheca platyphy'lla, *Dumort.* *Musc. All.* 263.
Frullania dilatata, *Nees*. *Musc. All.* 267. Base.
 Tamarisci, *Nees*. Base.
Herpetium réptans, *Nees*. *Musc. All.* 254. Base.
 trilobatum, *Nees*. *Musc. All.* 251. Base.
 deflexum, *Nees*. Base.
Pellia epiphy'lla, *Nees*. *Musc. All.* 284. Base. Alpine.
Aneura multifida, *Dumort.* *Musc. All.* 278. Base.

The following additional species I have collected in Ipswich and its vicinity :—

- Jungermannia sphagni*, *Dicks.* *Musc. All.* 229.
 setacea, *Weber*. *Musc. All.* 243.
Lophocolea bidentata, *Nees*.
Cheiloscyphus ascendens, *Hook. & Wils.* *Musc. All.* 247.
Geocalyx graveolens, *Nees*. *Musc. All.* 249.
Radula complanata, *Dumort.* *Musc. All.* 259.
Calopogeia Trichomanis, *Corda*. *Musc. All.* 257.
Hollia Lyellii, *Endlicher*. *Musc. All.* 281.
Aneura palmata, *Nees*. *Musc. All.* 279.
Metzgeria furcata, *Nees*. *Musc. All.* 283.

The following species of the White Mountains, I have found near Ipswich :—

Plagiochila porelloides, *Scapania nemorosa*, *Jungermannia Schradéri*,
bicuspidata, *connivens*, *trichophy'lla*, *Sarcoscyphus Ehrhárti*, *Trichocolea*
tomentella, *Ptilidium ciliare*, *Madotheca platyphy'lla*, *Frullania dilatata*,
Tamarisci, *Pellia epiphy'lla*, *Aneura multifida*, *Herpetium trilobatum*, *Jun-*
germannia curvifolia, *divaricata*.

In Ipswich and its vicinity, I have collected the following Mosses not recorded in Mr. Russell's Catalogue of the Mosses of Massachusetts :—

Hy'pnum denticulatum, *scitum*, and *varium*, *Léskea obscura* and *rostrata*,
Bry'um ventricosum, *Racomitrium sudeticum* and *aciculare*, *Grimmia Penn-*
sylvánica, *Dicranum varium*, *Poly'trichum gracile*, *Menzies*, *Orthotrichum*
Ludwigii and *strangulatum*. (Also *Buxbaumia aphylla* in great abundance
in many places.)

Ipswich, March, 1847.

REVIEWS.

ART. I. *A Report on the Trees and Shrubs, growing naturally in the forests of Massachusetts: published agreeably to an order of the Legislature.* By the Commissioners on the Zoological and Botanical Survey of the State. 1 Vol. 8vo. pp. 547. Boston. Dutton & Wentworth, State printers. 1846.

THIS long anticipated and very valuable document, prepared by George B. Emerson, Esq., has fulfilled the expectations of those, who, more or less familiar with the subject, yet needed the information therein contained, in a condensed and plain form; in such a form, indeed, as would render it useful to the man of practical business, and as a reference to him of more studious habits. Knowing the method employed to render this report as practical and as accurate as possible, we awaited in patient expectation its publication, feeling that nothing would be lost by delay. Considering the circumstances under which it has issued, we can only be surprised that so much has been done, and done so well. The author is a gentleman of most assiduous habits of life, and engaged, for the most part, in instruction of a very high order, demanding his undivided attention while so employed. He is favorably known as engaged in many popular schemes of education, and as the patron of sound learning in its every department, through his personal influence, as well as by his ready pen. Amidst the variety of reading, which now presents itself to the scholar, and besides these other and primary pursuits, he has found some brief moments in which nature, in her many departments of study, has been also regarded. With an ever open eye and a finely cultivated, as well as natural taste for the beautiful and the grand, for objects minute or great, he has rendered himself not only an amateur, but in no small measure, a practical naturalist. A familiarity with such studies is not to be obtained merely from books, but from observation and personal inspection; of such a kind as the volume before us bears ample record. To collect and to condense the mass of information laid before the public on this subject, is in itself no small labor. To simplify, classify and render it delight-

fully interesting and instructive, is something still greater. In these respects, the report most happily coincides with the practically scientific report on "Insects injurious to vegetation," prepared by Dr. Harris, itself also a State document, and connected with the general subject of the State survey.

Mr. Emerson, in his letter to Governor Briggs, tells us that

"The accompanying Report concludes the work of the Commissioners on the Zoological and Botanical Survey of the State. It has been prepared with especial reference to the instructions of Gov. Everett, accompanying his commission, and directing the Commissioners 'to keep carefully in view the economical relations of every subject of their inquiry.' I trust it may do something 'to promote the agricultural benefit of the Commonwealth,' by leading citizens who are land-owners to a consideration of the importance of continuing, improving, and enlarging the forests of the State.

"It is due to the Legislature, and to yourself, that I should make some apology for the tardy appearance of my Report. It is well known to your Excellency, that ever since the commission was issued, in 1837, I have been occupied, for ten months of every year, in a pursuit which left me no leisure for the Survey, and little for reading, on subjects connected with it. I have, therefore, been able to give to it only the summer vacation, and of that a considerable portion has, every year, been necessarily taken up with other things. Under these circumstances, it was hardly possible for me to give to the Survey the attention it deserved, and let my Report appear at an earlier period." p. 1.

We hinted at the method of arrangement: and of the facility afforded to the reader in making the treatise of practical value:

"In order that this Report should answer the ends for which the Survey was ordered, the descriptions of the Trees and Shrubs are arranged according to the Natural System. This has been done, not from undervaluing the artificial system of Linnæus, which must still continue of use in aiding to find the name of a plant and its place in the Natural System, but from a conviction of the incomparably greater value of the latter. The artificial system is based essentially on distinctions drawn from the stamens and pistils alone. The Natural System, on the contrary, takes into consideration not one part only, but every part and whatever relates to it,—the seed, from the development of its embryo to its germination, the growth, formation and arrangement of the wood, bark, buds and leaves, and the flower and fruit. It is found that plants which resemble each other in the external forms of their more essential parts, have a similar resemblance in properties and

uses, and require similar modes of management and culture. The adoption of the Natural System is, therefore, particularly important in a comparatively new country like ours.

“The uses of the natural arrangement in abridging the labor of acquisition and aiding the memory of the learner are most important, and its advantages to cultivators, to physicians,—to all who are seeking to enlarge their knowledge of the useful or dangerous properties of plants, that they may be able to avail themselves of the one, or counteract the other, to gain materials for the arts, or remedies or antidotes in medicine,—are too many to enumerate and too obvious to be further insisted upon.” p. 3.

The reader will perceive at once the value of the observations found in this volume, when he is made acquainted with the means to obtain them :

“The descriptions of the species of all the trees, and nearly all the shrubs, are my own, except where I have expressly given credit to others. To collect my materials, I have scoured the forests in almost every part of the State, from the western hills of Berkshire to Martha’s Vineyard, and from the banks of the Merrimack to the shores of Buzzard’s and Narragansett Bays. The leisure of several summers was first spent in ascertaining what the ligneous plants of Massachusetts are, and how they are distributed. If I have not discovered new species, I have found new localities for several oaks, willows, poplars, pines, and birches, and some others of less importance, and have thus enlarged the Flora of the State. That some species have escaped me is altogether probable, as, even in the summer of 1845, I found the Red Birch growing abundantly on a branch of the Merrimack, some hundreds of miles farther north than it had previously been noticed by any botanist.

“After having become familiar with the trees and their localities, I began to collect materials for their description ; and every important tree and shrub has been described from copious notes taken under or near the growing plant itself. A point with which I have each year been more and more struck, is the beauty of our native trees and of the climbing vines and undergrowth associated with them. I have thrown aside much which I had written upon this point. Utilitarian readers will perhaps find too much still retained. My apology for not pruning more severely must be found in my sincere conviction, that associations with the beauty of trees about our country homes enter deeply into the best elements of our character ; and a hope that what I have written may induce some of my readers to plant trees, for the purpose of increasing the beauty, and the appearance of seclusion and quiet, of the homes of their wives and children.

“A Report upon the Botany of the State is certainly very incomplete, without even an enumeration of the Algæ, the Mosses, the Lichens, and the Fungi ; and, with a hope to prevent this omission, I furnished myself, at the commencement of this Survey, with several somewhat expensive

works upon these departments of botany. But I am obliged to confess, that I have been able to do very little in regard to them. Since the commencement of this Survey, my friend, Rev. J. L. Russell, of Hingham, has carefully prepared a catalogue of the mosses in the eastern part of the State, which he was kind enough to place at my disposal. I was not willing that its publication should be delayed till the appearance of this volume, and it has been published in the *Boston Journal of Natural History*. Mr. Edward Tuckerman also prepared, at my request, a catalogue of the lichens found on the bark of trees in this State. As it is to be hoped that he will soon give us a complete account of the lichens of New England, for which work he is amply prepared, it would be doing him injustice to publish an imperfect catalogue. The deficiency in the history of the Algæ is likely to be soon supplied, by Prof. Bailey, of West Point, in the thorough manner of which he has given evidence in the *Scientific Journal*." p. 8.

Through the kindly coöperation of many friends of the author, and to the general subject, by personal inquiry and inspection in various manufactories, ship-yards, saw-mills, on farms, and in wood-lots, amidst primitive forests, and on mountain ranges, Mr. E. was thus enabled to present a mass of information, which will be received with that interest, which it demands. The labor of preparation, it is to be seen, must have been great, and the pursuit profitable as well as interesting, in giving opportunities for personal acquaintance with scenery, and also with habits of social life, to be found in our State; it remains for us to express our conviction that, in a scientific or more practical point of view, this concluding report will serve the noble purpose for which it was intended, and help, with the aid of others of the entire series, to fulfil the idea, which originally projected the Zoological and Botanical Survey of Massachusetts.

To the lover of nature, to the highly cultivated taste, there is scarcely any object so attractive as forest scenery, when considered in all its merits, proportions and parts. At all times of the year, the forests are objects of interest. When full of leafy honors, their masses of vegetation afford indescribable charms; when the summer heats have abated, and quiet autumn steals on apace, the innumerable tints of foliage render so peculiar the American autumnal landscape, as to appear to those unfamiliar with the fact, in foreign countries, as a pleasing tale, as some fancy of the painter or imagination of the poet. When denuded and bare, their contour, outline or the

sober colors of their spray, render them no less interesting amid the snows of winter: and when spring awakens her floral beauties to renewed life, the new-born garniture of the forests, from the delicate and pleasant green of its infancy to the rapidly changing verdure and dark foliage of its matured vigor, is full of wondrous charms. The great variety of woody plants found in the United States of America, and even in our own little State of Massachusetts, affect most materially the diversified scenery of the country. The most rugged and bleakest hills, whether on our own sea-coast or more inland, if covered with forest growth, are interesting objects at all seasons of the year, and equally, according to their peculiar merits, the deciduous forests, or the evergreen woods, are full of sylvan charms. Stretching for many a mile, the craggy and precipitous range of low hills in Saugus and Lynn are picturesque in winter or summer, for their black forests of Juniper and Red Cedar, clinging among the fissures of the rocks, and disputing with struggling pertinacity with each other, or with some chance species beside, for food and nutriment; while, in the lighter and more sandy soils, the rich and towering White Pines give an air of comfort and elegance to the surrounding country. The little village in which we reside, seems surrounded almost, with a belt of this fine tree; and now, while the lingering snow of winter is lying about us, the different colors and tints of the masses of spray, branches and groups of trees, afford pleasing subjects for observation. In the distance and background, two or three shades and variations of green, from the evergreen woods; nearer, the grey branches of a young copse of some species of oak, surmounted with the reddish hue of the last summer's growth, relieves agreeably the dull and prim drab color of the dead grass, where the absence of the snow allows it to be seen. One familiar with the appearance of trees and shrubs finds, in his mid-winter walks, more tints and even strongly expressed colors in the twigs, branches and trunks of the forests, than the skilful painter could imitate: and, from the "hybernal vestiges" of some tall annual, to the sempervirent or continued vital beauty of stronger and more enduring forms of vegetable life, he can find many pleasing subjects, which escape the careless eye.

But, besides being objects of admiration, the forests afford other subjects, of which let the author speak in the following fine passage :—

“ The immense variety, the many and important uses, and the great beauty of our forests, must, naturally, attract the attention of an observer ; and, as the preservation and improvement of the forests, in their highest degree, are above private effort, require joint action, and must be effected on a large scale, on a system wisely begun and long continued, by the men of one generation for those of the next ; and by the application of science, taste and skill, not by one but by many men, not in one village or town, but in a county and state ; it is wise in a government, not acting merely for the present, but extending its forethought generously onwards, making its knowledge and wisdom an invested capital for future use, and desiring to do for coming generations what they, when looking back, shall wish it had done,—it is wise, prudent and patriotic for such a government to order a survey of the forests, among its other domains, that the people may know the sources of their wealth and its extent, and learn how to value, enlarge and enjoy it. The conception and ordering of this general survey was worthy of the descendants of those who established free schools, free courts of justice, and freedom in religion. The idea was a noble one, with whatever success the work may have been executed.” p. 1.

In a journal devoted, as is this, to one of the most useful and important branches of agriculture, the important uses, which forests subserve, in the great economy of nature, should find place. We feel that it is benefiting and advancing the subject of Horticulture, by our presenting to our readers the following valuable facts :—

“ Forests protect a country from the violence of winds. The lively author of ‘ Life in Mexico ’ writes : ‘ M. de Humboldt, who examined the will of Cortes, informs us that the conqueror had left sugar plantations near Cuyoacan, in the valley of Mexico, where now, owing, it is supposed, to the cutting down of the trees, the cold is too great for sugar-cane or any other tropical production to thrive.’ And a most intelligent gentleman in Worcester tells me, that he attributes the greater difficulty now experienced in the cultivation of the more delicate fruits in that town, to the fact, that the encircling hills, formerly crowned with trees, are now, to a considerable degree, laid bare. The laws of the motion of the atmosphere are similar to those of water. A bare hill gives no protection. The wind pours over it as water pours over a dam. But if the hill be capped with trees, the windy cascade will be broken as into spray. Its violence will be sensibly diminished. We are not aware, on the now protected and irregular surface of New England, how important are the screens furnished by the forests. Travel-

lers from Illinois tell us, that, on the vast prairies in that and some of the other western States, the wind is almost always fresh, and often blows a gale, before which men can hardly stand. The new settlers are glad to shelter their habitations under the lee of the spurs of forest which stretch like promontories into the prairie lands. A forest near the coast, in any part of New England, protects those farther inland from the chilling east winds; and, while such winds prevail, a person passing towards the sea, experiences a marked change of temperature, upon crossing the last wood and especially the last wood-covered hill. One who would have his house screened from the northerly winds, must take care to have behind it a hill crowned with trees, or at least to have a wood stretching from the northwest to the northeast. A garden surrounded by tall trees admits the cultivation, even in our severe climate, of plants almost tropical." p. 6.

And while on this subject, let us introduce to notice a somewhat novel material for clipped hedges, and its proved utility, in the hemlock, (*Abies canadensis*.) *Michaux*.

"It bears pruning to almost any degree, without suffering injury; it is well suited to form screens for the protection of more tender trees and plants, or for concealing disagreeable objects. By being planted in double or triple rows, it may, in a few years, be made to assume the appearance of an impenetrable evergreen wall,—really impenetrable to the wind and to domestic animals. A hedge of this kind, seven or eight feet high, on a bleak, barren plain exposed to the northwest winds, gave Dr. Greene of Mansfield a warm, sunny, sheltered spot for the cultivation of delicate annual plants. When I saw it, the annuals, several of which were rare exotics, were beautiful, but the hemlock screen was much more so." p. 79.

Until within a few years, very little, if any attention has been paid to the preservation or reproduction of forests; a want of prudence and foresight very remarkable for so calculating a people as are New Englanders in general. With some rare exceptions, we are not aware that any thing has been effected in restoring old and barren lands to utility. There are thousands of acres in every town in the state, where scarcely any thing can grow as they exist now, and which might be rendered productive of distant indeed, but of almost certain value. The simplest kind of labor oftentimes produces this; and we know of instances where, in about twenty years, a return of marketable White Pine, useful for wooden-ware manufacture, was obtained from simply ploughing up the land, from which operation alone, innumerable young plants of that tree instant-

ly sprang. We know of knobs, so to speak, of the most rocky land, rendered productively valuable by the careful preservation and pruning of the Red Cedar, which sprang up spontaneously upon them, and which would have remained as shrubs, if browsed by cattle, and have continued to be as useless for food, as unsightly to the eye. From the success which has attended the experiments in France, on the most barren sands, and in Scotland, on the bleakest highlands, as well as from our actual knowledge of what humbler and more limited operations have effected in this vicinity, we are persuaded that the sterile and mossy ridges of gravel, stretching around some of our maritime towns, for instance, Duxbury, which is particularly in our mind now, and the sandy plains of Hingham, and of the more interior towns, could become of a future value, which scarcely can be calculated now. The importance of forests, and indeed of every tree and shrub, in improving the soil, is too great to be overlooked, while their own intrinsic value is by no means small. This is effected by the decomposition of the original soil through the roots; by the gradual decay of the foliage, and through the prevention of the winds carrying the particles of soil from spot to spot. Many an acre would resemble the moving sands of an Arabian desert, were it not for the thick carpet, of pine leaves which lie under the trees, which such a shifting soil bears: and not a few such we know, where entire days are required to dig out the walls and fences, buried, year by year, by the drift sand; a species of husbandry of most improvident character, and an evil which soon could be remedied, by the judicious planting of various species of pine. De Candolle tells us that he herborized for a whole day, in similar artificial "forests sown by Brementier on sand completely arid, and on which, before, scarce a trace of vegetation could be seen." It is well known, too, that the shade of the yellow Locust, (*Robinia psuedacacia*,) is most favorable to the growth of nutritious grass, even on spots where, before the planting of this tree, it was impossible to make it grow, and numerous such facts only tend to exhibit the facilities, as well as advantages, which this kind of agricultural pursuit offers.

Those who are fond of vegetable statistics, whether in the economical employment of the various kinds of woods, or in

the more pleasing but less useful details of size, form, proportions, of trees, will find much information in this report. Mr. Emerson is evidently a connoisseur in this branch of taste, and speaks with much felicity of many noble specimens of Oaks, Elms, Pines and other trees. Every body admires the Elm, and all are struck with their occasional extraordinary sizes. Of these

“ In Springfield, in a field a few rods north of the hotel, is an elm which was twenty-five feet and nine inches in circumference, at three feet from the ground, when I measured it in 1837. This magnificent tree divides, not many feet from the ground, into several large branches. This is near the place where the enormous *Celtis*, which was usually taken for an elm, once stood. There are many other elms, not far from this, some of which make a greater show at a distance. .

“ The Aspinwall elm, in Brookline, standing near the ancient house belonging to that family, and which was known to be one hundred and eighty-one years old in 1837, then measured twenty-six feet five inches at the ground, or as near to it as the roots would allow us to measure, and sixteen feet eight inches at five feet. The branches extended one hundred and four feet from southeast to northwest, and ninety-five from northeast to southwest.

“ The great elm on Boston Common was measured by Prof. Gray and myself, in June of 1844. At the ground, it measures twenty-three feet six inches; at three feet, seventeen feet eleven inches; and, at five feet, sixteen feet and one inch. The largest branch, towards the southeast, stretches fifty-one feet.

“ The classical elm, opposite the gate of the Botanic Garden, Cambridge, measured fourteen feet nine inches at four feet, in 1838.” pp. 290, 291.

A fine large specimen of *Céltis crassifolia* *Mr.*, or Hackberry, is thus mentioned :—

“ I have found it in only two places :—in Springfield, on the east side of the Connecticut River, and in West Springfield, on the west. Some of the trees are, I hope, still standing. The most remarkable one has been destroyed. It grew a few rods north of the Hampden House, in the broad county road, in Springfield. When I measured it, in September, 1838, its girth, at three feet from the ground, was sixteen feet ten inches; at four, it was fourteen feet three inches; at six, thirteen feet. It had gnarled, projecting roots, putting out on every side till nearly three feet from the surface. It diminished, gradually, to the height of twelve or fifteen feet, and there had several broad, irregular protuberances, where it had lost large limbs. Above this, it tapered rapidly, dividing into three branches, which formed a small, round, rather dense top, fifty or sixty feet high. It was covered with a very rough, brownish gray bark, and had, altogether, so

much the aspect of an elm, that it was, almost universally, taken for one. I was informed that a still larger tree of the same kind had formerly grown near it. Within two years, this noble tree has fallen, like its brother, before the axe of *improvement*." pp. 309, 310.

Here is a description of a picturesque tree, and an instance of enthusiasm not, happily, rare among lovers of plants:—

" There is a tree of this kind at Cohasset, which was first pointed out to me by the Rev. Dr. Greenwood, a man of taste, who was a lover of trees, and which we rode twenty-five miles expressly to see. It is richly worth a much longer journey. It stands in a lone pasture, half a mile or more eastward from a place called the Gulf. At the surface, just above the roots, it is eleven feet in circumference, and it is nine feet and two inches, up to the larger branches, which begin at about seven feet from the ground. The trunk loses little of its diameter for near twenty feet, although, in that space, twenty large branches, and many small ones, put out. These are very large, and project horizontally on every side, to a great distance, with an air of mighty strength and power of resistance. The bark is cleft into long prismatic ridges, nearly two inches high, which, on the larger branches, are broken into hexagons, with an approach to geometric regularity. It is of a mouse color, or purplish ashy gray, with white clouds of *pertusaria*, and greenish and bluish ash *parmelias*. The height is forty or fifty feet; the average breadth of the head sixty-three feet, its extreme breadth sixty-six. The whole head is of a broad, irregularly hemispherical shape, flat at top. A striking circumstance in this tree is the fact that the enormous horizontal branches push out as boldly seaward as in any other direction, though the north-east wind sweeps from the Bay in this quarter with a violence which has bent almost every other tree towards the land. I have observed many other instances of the vigor with which the tupelo stands out against the sea breeze." pp. 316, 317.

A picturesque ruin of a White OAK, * we are told,

" Is standing in Brighton, where the road called Nonantum Street crosses that from Boston to Newton Corner. At the surface of the ground, it measures, this first of October, 1845, twenty-five feet and nine inches in circumference; at three feet, it is twenty-two feet four inches; at six feet, fifteen feet two inches. It tapers gradually to the height of about twenty-five feet, where the stump of its ancient top is visible, below which point four or five pretty large branches are thrown out, which rise twenty or thirty feet higher. Below, the places of many former limbs are covered over by immense gnarled and bossed protuber-

* [This old specimen has always commanded our admiration: we have known it for nearly thirty years, and it seems now as it did when we first saw it.]—*Ed.*

ances. The trunk is hollow at the base, with a large opening on the southwest, through which boys and men may easily enter. It had, probably, passed its prime, centuries before the first English voice was heard on the shores of Massachusetts Bay. It is still clad with abundant foliage, and, if respected as its venerable age deserves, it may stand, an object of admiration, for centuries to come." p. 131.

Trees become objects of affectionate interest, and their untimely loss we properly deplore. An instance to the point, in the case of a beautiful sassafras (*Sassafras officinale* *Nees Vonesenbeck*.)

"The sassafras never grows to the size of a tree of the first class. One was growing in 1842, in West Cambridge, which measured more than three feet through at the base, and rose without a limb more than thirty feet, with a trunk very straight and slightly diminished, above which it had a somewhat lofty and broad head. It was nearly sixty feet high, and had been long growing by itself. It was felled and its roots dug up, *to allow a stone wall to run in a right line*. Such pieces of barbarism are still but too common. A tree so beautiful and lofty, and of such rare dimensions, such an ornament to a bare hill-side, sacrificed to the straightness of a wall!" p. 323.

[*To be continued.*]

MISCELLANEOUS INTELLIGENCE.

ART. I. General Notices.

Cultivation of Annual Flowers.—"Well grown Annuals contribute much to the gaiety of the garden; and although not quite so well adapted for masses as some of our half-hardy plants, yet they are extremely eligible for borders and mixed beds. They are frequently treated with too much kindness, sown in soil of too rich a character, and, of course, 'run too much to leaf.' We would advise all those, who can spare the means, to devote two little frames to their especial cultivation at this period, the one with bottom-heat, the other without it. That with bottom-heat would be better with a plunging material, possessing a permanent heat of 70°, the pots placed very close to a clear glass roof, and matted up at night. The other frame, without bottom-heat, should be raised a foot above the ground level, where water cannot possibly stand, and should be filled to within a foot of the glass with cinder ashes. They should be both well watered with boiling water previous to placing the pots to destroy all insects. We would raise both the tender and hardy kinds in the frame with heat; managing the sowings in a successive way, according to the period in which they were required to blossom. The hardy, however, would have to be removed to the

cold frame as soon as an inch high ; they would there harden down in a couple of weeks, and be ready for turning out into the borders. The tender annuals, if drawing in the warm frame, might be removed to warm and light shelves, in the greenhouse or other structures. The soil for the hardy kinds should be chiefly plain loam ; this will be found to produce a sturdier plant than rich vegetable matters ; and much blossom, in proportion to the amount of foliage. We would raise all our hardy annuals in pots through the summer, in cool frames, turning them out when slightly pot-bound. How often have we seen annuals, in rich borders, of immense size yet contributing little to the decoration of the garden ; and, in a wet and dull summer, actually rotting in the ground.”—*Gardeners' Chronicle*, 1847. p. 119 and 120.

Pruning the Pear Tree.—A series of short articles has lately appeared in the *Gardeners' Chronicle*, upon the pruning of the pear tree, which we may presume are from the pen of Mr. R. Thompson. As they are just now in good season, we extract the following upon the mode of pruning standards, equally applicable, also, to dwarfs, and, at another opportunity, we shall endeavor to find room for that portion upon espaliers. We commend it to the attention of all cultivators :—

“ We broke off, in our last number, with the Pear Tree, supposed to be stopped, at the time of winter pruning, to three buds above the desired height of clear stem, which was assumed to be 6 feet. These three buds will in all probability break into shoots. In the course of the summer there is also great probability that the said shoots will grow at unequal angles of elevation ; the shoot from the uppermost bud tending most to a perpendicular direction, and, from this circumstance, it will generally be the strongest. An equality of growth is now, however, desirable. This may be secured by bending the strong shoot from the upright direction, by means of a strip of matting before midsummer ; and if in July it should still exhibit great superiority in vigor, stop it by cutting or pinching off its point.

“ At the end of the season, the three shoots will be tolerably equal, and may be shortened to about a foot in length. Two shoots should be allowed to grow from each of these three primary ones ; and thus six principal limbs will be originated. These should, of course, be as nearly equi-distant as possible. In order to secure this, care should be taken always to cut above a bud pointing towards the direction which it may appear desirable for the shoot from it to proceed. For example, if two branches are likely to approach, or ultimately to cross each other, the leading shoots of such branches should be cut to buds pointing in opposite directions. If, on the other hand, there is too great a space between two branches, let these be cut to buds situated on the respective sides of the branches or shoots next the opening. If a branch has taken a direction too upright, cut to a bud on its under side ; if too pendulous, shorten more than in the preceding case, and to a bud on the upper side.

“The formation of shoots to form the principal branches of the top having been effected, it will next be necessary to shorten the leaders of these where

side branches from them are required ; or, on the contrary, where too many shoots proceed from near the same point, they should be duly thinned, otherwise confusion will inevitably ensue. As has been already observed, when a shoot is cut back, three buds will generally break ; but nothing like tridents, or what may be represented by the Greek letter ψ , should now appear ; one shoot should be left for the prolongation of the branch ; another for a side branch next the greatest opening, and the third should be cut clean away."—*Gard. Chron.*, 1847, p. 67.

ART. II. Domestic Notices.

Pittsburg Horticultural Society, Penn.—We have been gratified to learn of the organization of a society in this place : there are many zealous amateurs in the vicinity, and, among the number, we may name our correspondent, B. W. Fahnestock, Esq., whose collection contains all the choice plants to be found in metropolitan nurseries. We hope, ere long, to have the pleasure of accepting the many polite invitations which have been extended to us to visit Pittsburg. The new society having enrolled our name among the honorary members, we have directed our Magazine to be forwarded for the Library, and, should our time allow, we hope to serve its interests in other ways.—*Ed.*

Pinelæa spectabilis has been superbly in flower in our collection, with upwards of *twenty-five* heads of flowers on plants not more than a foot high. It is one of the richest acquisitions to greenhouse collections.

Phillips Sweeting Apple.—There seems to be some doubt whether the variety, known under this name, is a seedling, or an old kind under a new name. In the absence of authentic information, it may be considered a new Ohio fruit of much excellence ; but we hope to be able, next autumn, to give a full account and description of it.—*Ed.*

Supposed Influence of the Sun upon the Stock.—Have you ever noticed, in removing nursery trees—apples for instance—which were budded or grafted when quite small, a remarkable similarity in the form, size, and general appearance of the roots of those of any one variety, and as remarkable a dissimilarity between those of different kinds ; one kind, for example, being furnished with numerous small roots, another with few large and branching ones ? and so of many other peculiarities ? It may be all fancy, but I think I have noticed such differences, and am inclined to think that the scion exerts an influence on the stock not as yet known or appreciated. As the season for transplanting is at hand, I wish you would bear the subject in mind, and give me, some time, the results of your observation. In a note to Mr. Downing, part of which he published in the *Horticulturist* for December, I mentioned a peculiar appearance of some plum roots, hoping to elicit, from him or some correspondent, some remarks, but have not as yet noticed any. I think it a subject worth attention.—*Yours, S. L. G., Saco,*

Me., March, 1847. [We have not, ourselves, directed particular attention to this subject, but the coming month, when we shall see the roots of many hundred trees, we will endeavor to note the peculiarities our correspondent alludes to.]—*Ed.*

Colmar d'Arenberg Pear.—This new variety, which has been stated to be "the largest dessert pear known," the fruit having been grown to the size of 18 inches in circumference, fruited the last year in the collection of J. P. Cushing, Esq., Watertown, and proved to be not only handsome, but of excellent quality. Our specimen trees are full of flower buds, and we hope to have the pleasure of giving our readers a full account of it the coming autumn.—*Ed.*

The Grosse Calabash Pear, which has recently attracted much attention among English Pomologists, is stated by M. Langelier, who raised fine specimens last autumn, to measure 8 to 8½ inches in length, and weigh from 20 to 24 ounces. We had a tree of M. Langelier in the spring of 1844, and it has now the appearance of bearing the coming season. Its quality is stated to be first-rate.—*Ed.*

Beurré Langelier has, after the trial of the last year, (1846,) proved to be one of the finest kinds known.

Downing's Mammoth Rhubarb.—Some five years since, (Vol. VII, p. 373,) we noticed this most superb variety of rhubarb: a fter a trial of three years, it has proved to be far superior to any European variety—bearing as early as the Tobolsk, as large as the Victoria, and more tender and better-flavored than either. We are not sure but what we may say with truth, it is the greatest improvement which has been made since the introduction of rhubarb as a culinary plant.—*Ed.*

New Horticultural Societies.—We perceive, by the legislative reports, that two new societies have just been incorporated, viz: the New Bedford Horticultural Society, and the Hampden County Horticultural Society. This speaks well for the growing taste in rural pursuits.—*Ed.*

Horticultural Society in Montreal, C. W.—A new association has recently been organized in Montreal, and a paper which has been sent us contains an account of the first meeting, with the names of the officers. We notice the names of several of our readers on the various committees, especially those of our friends, Henry Case and John Frothingham, Esqrs. We do not doubt great good will be accomplished through the exertions of the members.—*Ed.*

Tom Thumb Geranium.—This miniature and truly splendid variety of the scarlet family of geraniums of which almost as much has been said in the gardening papers, as of the veritable Tom Thumb in the Journals of the day, is now beautifully in flower in our collection; its entire habit is extremely dwarf, and an old plant, only about 6 inches high, has several fine clusters of flowers which stand erect above the tiny foliage. When bedded out in summer, the groups form one mass of glittering scarlet. Compared with Smith's Scarlet, would be like comparing Tom Thumb with the Kentucky Giant.—*Ed.*

ART. III. *Massachusetts Horticultural Society.*

Saturday, March 6, 1847.—An adjourned meeting was held—President in the chair.

The Committee, to whom was entrusted the publishing of the Transactions of the Society, reported verbally, that their duty had been accomplished.

Voted,—That the report of the Committee of Publication be accepted, and copies placed upon the table for distribution among the members of the Society.

Voted,—That the President be requested to petition the Legislature now in session, to extend the same patronage to the Massachusetts Horticultural Society that it does to the various Agricultural Societies of the State.

A Committee was appointed to set the days of the next annual Exhibition of the Society, and Messrs. Sam'l. Walker, E. M. Richards, C. M. Hovey, were appointed.

John Washburn, Jr., Plymouth, was elected a subscription member, and George B. Emerson, Esq., a corresponding member.

Adjourned one week, to March 13.

Exhibited.—FLOWERS : From Messrs. Hovey & Co., six fine varieties of Azaleas in fine bloom, as follows : *Speciosa*, *Remingtonii*, *Copeii*, *Herbertii* purpurea, Large Cherry, and a new seedling white ; also, 8 varieties of seedling verbenas, and the following roses,—*Noisette Similor*, *Lamarque*, and *Solfataire* ; *Bourbon Souchet*, *Madame Angelina*, *Gloire de Paris*, and *Moss Celinae* : and a superb plant of the rare *Pimelèa spectabilis*, and one of *P. hispidæ*.

Premiums for Azaleas were accorded as follows :—

AZALEAS. To Messrs. Hovey & Co. the Society's premium of six dollars for 6 plants of azaleas in pots.

PLANTS in POTS. A gratuity of three dollars, to Messrs. Hovey & Co., for *Pimelèa Spectabilis*.

March 13.—An adjourned meeting of the Society was held to-day, the President in the chair.

C. M. Hovey, Chairman of the Library Committee, made a report, and it was Voted, that the report be accepted to the full amount of the appropriation, viz., \$300.

Voted,—That the Recording Secretary be requested to send a copy of the Transactions of the Society to every member, and to such Agricultural, Horticultural and Literary Societies as may be deemed advisable.

Adjourned for one week to March 20.

Exhibited.—FLOWERS : From Messrs. Hovey & Co.,—a fine plant of the new and superb Hybrid Moss Rose *Princesse Adelaide*, about 5 feet high, with from 25 to 30 buds and blossoms : also cut flowers, of *Tea*, *Rose*, *Nisida*, *Caroline* and *Bourgere* ; Hybrid *Perpetual Indigo*, *Dutchess of Montmorency*, *Mrs. Elliott*, *Lilacee*, and various others. From P. Barnes, a

fine plant of *Cytisus racemòsus* ; also seedling *Cineraria* and *Verbena*, and rose *Caroline Mignonne*.

FRUITS : From S. W. Cole, Marston's Red Winter, Jewett's Red and *Æsopus Spitzenberg* Apples,—the former, a fine new kind, which we have described in a previous page. From S. Downer, *Pomme de Neige* apples.

March 20, 1847.—An adjourned meeting of the Society was held to-day,—the President in the chair.

The Committee of Publication submitted a report in reference to the publishing a new series of the "*Transactions of the Society*," and it was *accepted*.

Meeting dissolved.

Exhibited.—**FLOWERS :** From M. P. Wilder, Tea, Princess Adelaide, roses, and other sorts.

ART. IV. *Obituary.*

DEATH OF M. SOULANGE BODIN.—It is with feelings of pain that we announce the death of this distinguished horticulturist, which took place last July, at his residence at Fromont, near Paris, at the age of 72 years.

In our notes on the Gardens and Gardening of Europe, as gathered in our recent tour (Vol. XI. p. 283,) we have given a very full account of M. Bodin's beautiful residence at Fromont, on the Seine, and, at the same time, recorded our admiration of the taste in which the grounds were laid out,—the extreme neatness prevailing in every part,—and the skilful arrangement of the nursery department. The day we passed at Fromont was one which will live long in our memory—and we shall ever feel grateful that we had the pleasure, not only of a long and interesting correspondence with the intelligent and accomplished proprietor, but the still greater gratification of partaking of the hospitalities of his home, where, after a life spent in the service of his country, he had sought retirement, and devoted his fortune to the planting and picturesque embellishment of his grounds.

Some years since, we had the pleasure of sending M. Bodin several vols. of our Magazine, and recently received in exchange, a complete set of the *Annals of Fromont*, in 6 vols., a work of great value, issued under his superintendence when Fromont was the Royal Institution for the promotion of Horticulture.

We need add but little to what we have said at the page referred to. M. Bodin died, as he had lived, universally beloved and esteemed.

Mr. S. GIRLING, the celebrated dahlia-grower and nurseryman of Stowmarket, near London, died during the past winter. For some years, he has been one of the leading cultivators of the dahlia, petunia, and other florist flowers.

DEATH OF R. ARTHUR, Esq.—Our readers will probably recollect our announcement, in the early part of our last volume (XII,) of a new correspon-

dent in Scotland, in the person of Mr. Arthur, travelling agent of the extensive nurseries of Messrs. Dickson, of Edinburgh; we have just learned, by a friend who recently returned from a visit to his native city, that his death took place in the early part of last autumn. Mr. Arthur was a man of great business activity, and also a ready writer, and in his death our readers have not only lost a valuable correspondent, but an upright and honorable man, and a zealous lover and promoter of gardening pursuits.

HORTICULTURAL MEMORANDA

FOR APRIL.

Grape Vines, in the green-house or grapery, will now be coming rapidly forward, and will need constant, or at least careful, attention. The shoots which spring from the spurs should be looked after and regularly tied down; for, if neglected, there is danger of breaking them off: this work should generally be done in the middle of the day, when the sun has rendered them more pliable; if done too early in the morning, there is greater danger of injury. The growth may also be pinched off two eyes beyond the fruit buds, and rub off superfluous buds at the base. Syringe carefully every morning and evening in good weather. Give air early, and keep the temperature rather low, in order that the branches may not be drawn out weak; 50° to 55° is ample during the night. Cuttings may now be put in hot beds. Vines in pots should be liberally watered, and, if the fruit is set, occasionally with guano.

Raspberry beds should be uncovered as soon as the frost will admit; new plantations may be made this month.

Strawberry beds should also be uncovered, the coarse litter raked off carefully.

Currant and Gooseberry bushes may be set out, and old plants carefully trimmed, manured, and the ground dug around them.

Apple, Pear, Plum and Cherry stocks may be set out this month.

Scions of trees may still be cut.

Grafting may be commenced this month, beginning with the cherries.

Fruit Trees of all kinds should now be transplanted.

FLOWER DEPARTMENT.

Pelargoniums will now begin to open their blossoms, and, to preserve them in beauty, they should be shaded in the middle of the day—or the glass whitened to prevent the powerful rays of the sun from injuring their delicate tints: if the shoots grow too upright, let them be tied down again, as far as their pliability will allow: but do not let the sticks project above the base of the flower-stems: keep them near the glass where they can have

an abundance of air and light, and water freely ; discontinue syringing after the buds open. Fumigate, if the green fly appears.

Japan Lilies, managed as we have directed, will now be 2 feet high, and will require a shift into the next size.

Achimenes of the several kinds should now be potted off carefully.

Camellias will now be making their new growth, and will require very liberal supplies of water, and repeated syringings over the foliage ; old stunted plants should be headed in, and they will soon push out vigorous shoots. Inarching may still be performed.

Hyacinth and Tulip beds, owing to the late cold weather, could not be uncovered ; they should now be looked after without delay.

Calceolarias should be repotted again.

Dahlias will now be coming forward when they have been potted, and if a stock is wanted, the cuttings may be put in.

Verbenas may now be propagated from cuttings, for a stock for planting out in summer.

Gloxinias which have started well, should now be shifted into larger pots.

Pansies, raised from seeds last month, should now be potted off into boxes or pots.

Salvia splendens and *fulgens* should now be propagated for a young stock for summer.

Fuchsias will now need shifting into larger pots if fine specimen plants are wanted.

Chrysanthemums should be propagated from cuttings, or the roots divided to make a good stock.

Hydrangeas may now be propagated from cuttings.

Dwarf Rocket Larkspur seed should be sown as soon as the ground can be made ready.

Gladioluses, tuberoses, and other summer bulbs, may now be potted for early blooming.

Oxalises done flowering should be sparingly watered.

Pæonies should be removed this month.

Carnations and picotees, in frames, should be aired every fine day.

Choice annuals, such as we recommended last month, with other new and choice kinds, should now be planted in pots and placed in the hot-bed or green-house. Such as are already up may be potted off into small pots.

Herbaceous plants, of all kinds, may be successfully transplanted this month.

VEGETABLE DEPARTMENT.

Tomatoes, Egg plants, &c. raised from seeds sown either in February or March, should now be potted off into small pots, preparatory to their removal to the open ground in May.

Lettuce, Radishes, Cabbages, Celery, &c. may be sown for a succession.

Cucumbers [already hilled out] will need attention and liberal supplies of water.

THE MAGAZINE
OF
HORTICULTURE.

MAY, 1847.

ORIGINAL COMMUNICATIONS.

ART. I. *On the Cultivation of the Arrow Root in the United States as an Article of Commerce.* By Dr. A. MITCHELL, of Portland, Me. In a Letter to Hon. H. A. S. Dearborn. Communicated by Gen. Dearborn.

DEAR SIR.—I enclose you a letter from Doct. Mitchell of Portland, one of our most distinguished naturalists, with a small package of seeds of the Arrow Root.

I hope you will make an experiment in cultivating that valuable plant, although it is of a southern clime. If it is brought forward in a hotbed, it is possible you may mature the plant.

You can publish the letter in your Magazine, if you think proper. With sincere esteem, your most obedient servant,
H. A. S. DEARBORN.

Hawthorn Cottage, Roxbury, April 5, 1847.

MY DEAR SIR,—I here enclose you a small specimen of the Indian Arrow Root, sent to me by Dr. Henry Bacon, of St. Mary's, (South Georgia). The article was cultivated by him on his plantation in Florida. I will here call your attention to the cultivation of this plant, and briefly state that the success has met the most sanguine wishes of the cultivator, and bids fair to form one of the articles, as an American product of commerce, both for export and import.

The specimen which I send was derived from the root of the (*Maránta arundinácea*;) there are three species of this genus, viz., the *arundinácea*, *Galángá*, *comòsa*; they are natives of the Indies, a herbaceous and perennial exotic, which

have been, a long time, cultivated in the West India Islands. The specimen which I send you appears to be the most superior article that I have ever seen of the kind, abounding in an excess of nutritive qualities, and purity of appearance, surpassing that of the West Indies.

An intelligent gentleman, Col. Halloes, and a favorite officer of Bolivar, has the honor, I believe, of being the first cultivator of this plant, on a large scale, in our Union. He was driven from his location in Florida by the Indians, after receiving a severe wound in the head by a rifle-shot; he then removed to Camden County, South Georgia, and entered at once into the cultivation of this plant on a large scale: thus you perceive this plant is gradually becoming acclimated in our country, and I have no doubt but a few years will elapse when we shall find it cultivated with success in latitude 36° north. It grows well in a siliceous soil, on a light sandy loam, resists the drought well, with more certainty of a crop than either cotton or corn.

I will take the pains to enter into a more minute detail of the facts connected with the cultivation of this article, as proven, amount per acre, &c., and have them reported through you in the agricultural department.

The Arrow Root obtains its name from the fact of the Indians using it to extract the virus communicated by their poisoned arrows.

With great esteem, I am, dear sir, your obedient servant,
Portland, April 2, 1847.

AUGUSTUS MITCHELL.

We acknowledge our indebtedness to General Dearborn for the communication of Dr. Mitchell's Letter, and also for the package of seed accompanying the same, which we shall make a trial of, and report upon its growth at a future time. It will give us great pleasure to publish the intended communication of Dr. Mitchell in relation to the mode of cultivating the Arrow Root, the produce per acre, the process of manufacture, and the probable profit as compared with cotton, corn, or tobacco. Gen. Dearborn deserves the thanks of every friend of agriculture for bringing this subject before the public, and we trust his efforts to introduce a new and important article of commerce will be seconded by every intelligent cultivator.—*Ed.*

ART. II. *Explanations in reference to Two or Three Western Apples; with a Note upon a New Variety called the Butter Sweet.* By T. S. HUMRICKHOUSE, Coshocton, Ohio.

I AM induced to offer a few additional observations, including a correction or two, upon some items contained in Mr. Fahnestock's article, March number of your Magazine, and in your remarks thereunder, in order to guard against misconceptions, which, if left unnoticed, might grow out of them.

First:—Hart's Orange Sweeting, or, as it may be better to call it simply, Hart's Sweeting. Scions of this apple were first obtained by me from Mr. Isaac B. Hart, of Tiverton township in this county, in the spring of 1841. On referring to my note-book, I find that, on the 6th day of April, 1841, I grafted, by the method of root-grafting, and placed in the nursery, six trees of it; and that I did not extend its cultivation further till 1845, when having, in the preceding winter, examined and eaten of the fruit from the original tree, I, on the 24th of March of that year, grafted seven more trees of it, by the same method, and planted them in the nursery. One of the last-mentioned trees I sent to you last fall, numbered, if I mistake not, LI.; and from another of them the scions were taken which I gave to Mr. Mathews, who sent them to Mr. Fahnestock.

The fruit is of a clear yellow; of the size of the Green Newtown Pippin; nearly round; sweet, juicy, tender, and good; keeping till April. It is a seedling raised by Mr. Hart, as he informed me.

Second:—Red Pearmain, often called Long Pearmain. This is, in my estimation, a first-rate apple, in this climate, for November and December. It is not, however, a seedling of Ohio, but is one of the varieties originally brought to Marietta from Connecticut; and the name of Red or Long Pearmain has obtained for it here from its color and shape. It is the English Pearmain of Mr. Bateham's list.

Third:—American White Winter Calville. This fruit was first offered to the notice of pomologists by myself. I obtained the scions from trees in the orchard of Mrs. Foster, which she had raised from sprouts taken from the tree (since dead)

at Mr. Daniel Miller's. Respecting its origin, Mr. Miller informed me that his tree was brought from Virginia about forty years ago, and was a sprout taken from a tree in an old orchard on the south branch of the Potomac; that it was not a grafted tree, and that they had no grafted fruit in the orchard, with which he was well acquainted, where the sprout was obtained. I first saw and ate of the fruit in the winter of 1838-9, and grafted nineteen trees of it in 1841. In January, 1843, I sent a description of it to Wm. Kenrick, accompanied with scions. Last spring, I sent scions to yourself, which you have since informed me were growing.

Mr. Miller and Mrs. Foster called this apple the "White Pippin" and *knew it by no other name*. The name of American White Winter Calville *was first given to it by myself*. So you see it cannot be the White Winter Calville of the French, after which I named it, on account of its resemblance to that old variety; else, in naming, as I thought, a *new* variety, I unconsciously hit upon its old name with the erroneous prefix of "American," a thing little likely to take place. It cannot be the same with the French variety, because this apple has been propagated by means of sprouts time out of mind, as I may say; a thing impossible unless root-grafting had been employed upon the first tree in the series, and *that tree* had established itself upon its own roots, and threw up sprouts from them to be taken and reared into trees. At the time at which this must have happened, had it happened at all, I believe that root-grafting the apple was not practised; and there was, moreover, little or no grafted fruit of any kind in the part of Virginia from which the family of Mr. Miller removed. Nor would the slightest suspicion now exist of its being the French variety, if I had not *unfortunately re-named it*.

My reasons for giving it the new name I believed to be sufficient at the time; they were briefly as follows:—There are so many apples called "Pippin," with various prefixes and addenda, as to have already brought in great confusion in relation to some of them. The prefix "White" might come at some time to be omitted, since the difference between white, green and straw color, as descriptive of the color of an apple, is often very slight indeed; and we have already "Green Pippins" and "Golden

Pippins" and "Yellow Pippins" without number. It bore a very striking resemblance to the French variety, and evidently belonged to the same class. And lastly, inasmuch as the fruit would be first introduced to the notice of pomologists by the *new name*, I conceived that no inconvenience could result from it.

Upon the whole, this case is a good one to exemplify the propriety of the principle of the Fifth Rule as set forth in my article upon the subject of the Uniform Nomenclature of Fruits, (Vol. XII. p. 47), which is,—

"That the names given to new seedlings be sufficiently distinctive to guard against and prevent their being confounded with previously named sorts."

Had I adhered to it in this case, no doubt would ever have arisen, as I believe there is no foundation for any, of this being a *new* and *distinct* variety.

Fourth:—The varieties before referred to, as well as the Early Pennock, Crimson Nonpareil, Belle de Witt, and Zoar Large Green, have been already widely disseminated among nurserymen by myself and others, chiefly by Mr. Mathews.

Coshocton, March 16, 1847.

NOTE. Allow me to call your attention to a very fine red apple of medium size, called Butter Apple or Butter Sweet, the origin of which is unknown to me further than that it was first cultivated, as I am informed, in the neighborhood of Wooster, Ohio, whence I obtained two trees in 1839, which are now bearing. It is hardly a sweet apple, very juicy and sprightly, with an exceedingly high *musky* flavor such as I never found in any other apple. It keeps well into winter. T. S. H.

If, as we may infer from the remarks of our correspondent, in whose opinion we place the greatest confidence, the American White Winter Calville is a native variety, his explanation in regard to the name is especially valuable to prevent mistakes hereafter. After our remarks, appended to Mr. Fahnestock's article, had gone to press, it occurred to us that we had received some account of the variety in question before, and, in turning to a former volume, (XI. p. 448,) we found we had done, what is not usual with us, overlooked his communication, and also the fact that, through the kind-

ness of Mr. Humrickhouse, we have a tree of the Calville raised from scions received from him last spring. It appears, however, that the origin of this variety is yet rather obscure, and though, from the facts he adduces, we can scarcely doubt that it is an American seedling, still it may be an error. We are well aware that the best proof of a seedling variety is its propagation from *suckers*. So much did the late Mr. Manning rely upon this, that he highly offended a gentleman who had produced a fine seedling cherry, when he expressed his doubts about its native origin, and, to test its not being some European variety, asked the possessor of the original tree to give him a sucker, which would at once settle the question.

We shall, therefore, rely upon the information of our correspondent in regard to the native origin of the American White Winter Calville, and deem it an entirely new variety. When our own trees come into bearing, we shall make a careful comparison of the fruit as well as of the wood and leaves, and give our readers the results of our inquiries.—*Ed.*

ART. III. *Some Account of the Oswego Beurré, or Reid's Seedling Pear.* By the EDITOR.

THE past year has brought to the immediate notice of cultivators several new and excellent pears, and among them some native varieties which promise to excel the best Belgian or French kinds. Among the latter, may be named the Swan's Orange, or Onondaga, and the Reid's Seedling, or the Oswego Beurré. The first we have a very full and complete account of, as well as a drawing and description of the fruit, and shall soon give them to our readers as we promised last December (Vol. XII. p. 492). The last we are now gratified in bringing to the attention of cultivators, by the kindness of our correspondents, in Western New York, who have sent us the particulars which follow in regard to the history and origin of this pear.

We have not time now to enter into a defence of the correct

name of the variety, but if the brief account which has been given of it is correct, its proper title should be "REID'S SEEDLING," for Mr. Downing has stated that it was raised from seed by Mr. W. Reed, of Oswego, New York, and as that has been its name for some time previous to its introduction to notice by Mr. Allen, we do not see how his becoming proprietor or possessor of the stock, should give him any authority to re-name it. This is the practice of some French nurserymen, in order to increase their catalogues of new varieties, but we hope it is not about to be adopted by our cultivators. If the facts are as we suppose, and we see the *Genesee Farmer* states they are, the legitimate name is Reid's Seedling; though, until we are more fully informed on this point, we shall prefix both titles. Of the great impropriety of calling Swan's Orange, the Onondaga, we shall speak when we describe that fine pear. If every author or cultivator is at liberty to lay aside old and established names, all efforts to arrive at a correct nomenclature may be abandoned at once.

The Oswego Beurré was raised by Mr. Walter Reid, of Oswego, New York, and the original tree is now growing on the farm, now, or late, in his possession. The tree is now of large size, and cannot be removed with safety: last year, it bore fifteen barrels of fruit, and, what is remarkable, it has continued to bear annually ever since it first fruited, which was when the tree was only eight or nine years of age. The tree has, we believe, passed into the possession of Mr. Allen, nurseryman of Oswego, from whom these facts have been gathered, and who intends to keep it for propagation, and raise a fine stock of young trees to supply the trade.

The fruit is of large size, not quite as large as the Brown Beurré, but larger than the White Doyenné, of regular, oval-ovate form, with a greenish-yellow and smooth skin, traced more or less with russet, and with a short stout stem. The flesh is very melting and juicy, and the flavor sprightly, saccharine, rich and high-flavored. It ripens, Mr. Allen states, early in November, and is fit for the dessert from that time until January. The tree is remarkably thrifty, hardy, and an early bearer.

This variety is probably a cross between the Brown Beurré and the White Doyenné, as it partakes to some extent of the merits and characteristics of both, and as these two varieties

were the only kinds known in the vicinity, at the time the seed of this tree was sown, or accidentally dropped where the tree now is. The tree is now growing in grass land, and is, of course, not as vigorous as if standing in a highly cultivated garden.

Our correspondent, who has communicated these facts, informs us that it is a variety which, he does not doubt, will be sought after with great avidity, as soon as its merits become better known; we hope, therefore, Mr. Allen will be successful in rapidly bringing forward his young trees.

ART IV. *Some Remarks upon the Cooper Apple, and its Identity with Other Sorts.* By A. H. ERNST, Cincinnati, Ohio.

I HAVE read with instruction many of the articles from the pen of your enthusiastic correspondent, Mr. Humrickhouse, and always look them over with an expectation of meeting something new and interesting. In his last, in your March number, on the Cooper Apple, he says:—"The Cooper is indeed, a most superior apple." This is true; but he is in an error in supposing it identical with the Drap d'Or, or the Fall Harvey. After reading his supposition, I immediately resorted to my trees, and compared the wood and their growth. This I found to be decidedly different. I obtained my Fall Harvey from the late R. Manning, and my Drap d'Or from Capt. Lovett of Beverly. I therefore feel confident of their genuineness. The Cooper, I obtained from Mr. George Dana, Jr., a nurseryman of Belpre, Ohio, where it has been cultivated most, and is known best. The growth of the tree I find to be upright, stiff, throwing out from its body thorny spurs, much like a native or uncultivated tree. The wood is yellowish red, and very much disposed to canker, showing decay and tenderness. This is not the case with either of the others. For specimens of the fruit, I am also indebted to the same source. These were very fine, of a lightish yellow color, slightly, but indistinctly streaked with red on the sunny side; globular form, but depressed at the base. It is not de-

cidedly sweet, yet very pleasantly so and rich; flesh white and tender.

The Dyer, I have not, to compare the growth with. Mr. Downing's description of that fruit is very applicable to the Cooper. Had he given us the description of the growth of the tree, its habit, and color of the wood, we could then have judged of their identity.

I thought, Mr. Editor, this explanation, in the moment and sudden excitement which has sprung up in regard to this fruit, might allay some of the anxiety about its identity with this or that apple. One Western editor gravely surmises that it would be found identical with the *Fall Pippin*. He might, with greater propriety, have supposed it the Maiden's Blush. The growth and appearance of the wood of the Cooper is so decidedly marked and distinct from most others, that any common observer who has seen it once will know it again among a hundred sorts. Hoping, sir, I shall not be viewed as impertinently intermeddling with this matter, but that this description of the tree, with its habit, which I have not seen alluded to by any of the writers on its fruit, may lead you, or some of your readers, to identify it, is my apology for thus troubling you.

Spring Garden, near Cincinnati, March 20, 1847.

Mr. Ernst has our thanks for the above remarks, and we are sure we may speak for our correspondent, to whom he alludes, that he will have his also. Such is the information we need, and such is the information we must have, if we would ever arrive at a correct nomenclature of our fruits. Mr. Ernst, as well as other of our correspondents, knows how much importance we attach, not only to the *habit* of growth of a tree, in identifying fruits, but even to the color of the wood, the shape of the buds, the form of the leaves, &c. This we have set forth in the prospectus to our proposed new work, the first number of which will probably be in the hands of both Mr. Ernst and Mr. Humrickhouse before they see these remarks. Without regard to these particulars, and without the most careful observation, we never can arrive at any certain and satisfactory results. With a hope to do something to aid in the good work, we have, at great expense and labor,

commenced *The Fruits of America*, and shall leave its readers to judge how much we have contributed to attain the end in view. We trust Mr. Ernst's remarks will call out the opinions of those who have the Dyer apple under cultivation; our own trees being yet too young to show their true habit; and one great object will be attained if the identity of the Cooper can be settled before it is spread throughout the country, as it is likely to be from its excellence.—*Ed.*

ART. V. *The Currant, its Cultivation, &c.* By J. H. WATTS,
Rochester, New York.

AN excellent article upon the Grape, and its culture in America, appeared in the Albany *Horticulturist*, page 397, from the pen of W. R. Prince, Esq., in which he showed the importance attached to that fine fruit, not only as a dessert, but its use when manufactured into wine. As a promoter of temperance, there can be no doubt but the grape and currant can be made powerful auxiliaries in that important cause. Some substitute for strong drinks is needed, and a harmless and pleasant beverage can be made from both, which our temperance friends would not forbid.

Of the currant, I now wish to speak. It is so common a fruit, that almost all who have a garden cultivate it.

The large red Dutch bushes are preferable, being such abundant bearers, and I know of no more useful ornament on the borders of a garden than well shaped currant bushes.—Trimmed as the English do them, they become an upright tree, which keeps the fruit from the ground, and gives the sun and air a good chance upon them.

Their early blossoming gives food to swarms of bees, and their hum amongst the bushes is their rejoicing that spring has again come.

I have grown large quantities of the red currant, and, after a bountiful use of them on the table, my family tried the experiment of making wine, in the year 1844, at which time we made 18 gallons. Having had such good success, in 1846 we

made 40 gallons. I send you a bottle, a sample of that made in 1844. The wine remained in the half-barrel one year on the "*lees*," and was then bottled and sealed. Its color is as high as any grape wine. I never please my friends more than when it is produced, and the strongest advocate of temperance need not fear abusing his or her pledge in its use. One pint of alcohol was all that was put in the 18 gallons.

I shall leave you to speak of its quality:—It is as pleasant as a cordial, and, for summer drink, mixed with water, it is as choice as *claret*.

I subjoin a recipe for any one who may wish to make it. "Pick the currants when fully ripe, and, after obtaining the juice, either by use of a wine-press, or by squeezing through a cloth with the hands,—to each gallon of juice add six quarts of water, three and half pounds of common brown sugar, (to cost 6 to 8 cents per pound,) and put it in your keg or barrel (according to quantity made,) minding that the keg be full, and let it thus stand, until it has gone through the necessary fermentation, then add the alcohol, one pint to 18 gallons, and close the barrel for one year at least, letting it stand in the cellar. After this time, it is fit for use, and may be bottled, and should be sealed. Age tempers it, and makes it as it does other wines.

Rochester, March 30th, 1847.

The currant, of all the small fruits, is the most valuable. To them, it holds the same relation as the apple to the large fruits. Like the apple, it may be used for every culinary purpose, or take its place among the dessert fruits. We are, therefore, glad to present any article which shall extend its cultivation; for no garden should be without at least a dozen bushes, which may be purchased for a small sum, and afford an abundance of wholesome and delicious fruit.

The manufacture of currant wine was, some years ago, carried on very extensively by the father of our friend W. Kenrick, and the grounds which he and his brother now occupy, were covered with thousands of bushes, from which many barrels of wine were annually made. Those were the days, however, when King Alcohol stalked abroad, and the pleasant beverage of currant wine had to give way to stronger drinks:

In these times of temperance reform, to recommend the use of any other beverage than cold water might subject us to the charge of opposition to this philanthropic cause; but, as a drink to take the place of alcohol, such a specimen of wine as Mr. Watts has sent us would do no one harm, and if it could be made to take the place of alcoholic liquors, it would be the most efficient aid in the promotion of temperance. A light and pleasant drink of some kind is necessary in our warm climate, and an article like this could be easily and cheaply made by every one who has a spare rod of ground. We recommend the recipe of Mr. Watts for manufacturing the wine to those who would like to make a trial of it.—*Ed.*

ART. VI. *On the Cultivation and Treatment of the Peach Tree, in Cold Houses.* By THOMAS B. COWAN, Gardener to Dr. Durfee, Fall River, Mass.

THE peach has, for a long time, occupied a conspicuous place among other fruits, and ranks as one of the most delicious, for summer use. It was first introduced into Europe from Persia, which is said to be its native country.

The following account of its introduction into Europe is given by Loudon, in his *Encyclopedia*. The peach tree, in its natural state, is under the middle size of trees; of quick growth, and not long duration. Sickler considers Persia as the original country of the peach, which, in Media, is deemed unwholesome; but, when planted in the alluvial soils of Egypt, becomes pulpy and delicious. The peach also, according to *Columella*, when first brought from Persia, into the Roman Empire, possessed deleterious qualities; which Knight concludes to have arisen from those peaches being only swollen almonds, or imperfect peaches; which are known to contain Prussic acid which operates unfavorably on many constitutions. The tree has been cultivated from time immemorial in most parts of Asia; when it was introduced into Greece is uncertain; the Romans seem to have brought it direct from Persia during the reign of the emperor Claudius. The peach

was introduced into England about the middle of the sixteenth century, and, owing to the unfavorableness of the climate, it is always there cultivated against walls or under glass.

Practical men have, at all times, found it difficult to cultivate the peach to perfection; that is, having its peculiar rich and delicious flavor; for, in a great many instances, where the trees are grown in houses, the flavor of the fruit is poor and insipid, and little better, if the expression may be used, than a turnip.

It is my intention to give as correct an idea as possible, in regard to the making of the borders, planting, training, pruning, general management, &c. The formation of the border, I consider the most difficult part; for, if it is not made properly, it is quite useless to expect to raise good fruit; and it matters not how much care, time or expense may be spent afterwards, it will never make up for this defect; and it is always best to do the work thoroughly at first, sparing no pains or expense, as the trees will amply repay for all the extra trouble.

The border should commence at the back wall inside of the house, and extend outside under the arches, to the distance of twelve feet from the front of the house. The soil should all be taken out to the depth of two feet six inches, sloping the bottom gradually, so that the front will be one foot lower than the back: a drain should run along the front of the border one foot deep, with small cross-drains leading into it, so as to have a perfect command of draining off all superfluous water, particularly where the bottom is spongy and wet. There should then be laid, on the bottom thus formed, about six inches of stones and rubbish, leaving the depth for the soil two feet.

The soils and manures which I consider best suited to the peach, are three parts of the top sod of good old pasture land, dug up about six or eight inches deep, and laid up in a pile, with the grass side down, for about a year, and never turned; one eighth part street manure, and the other eighth part decomposed horse or cow dung. I do not approve of turning over and mixing the materials promiscuously together, as I think such repeated intermixture is very injurious to the soil, and, by often turning the compost, it becomes too heavy.

When the soil is in readiness, commence filling up the border, mixing the materials in proportion, and turning them in as rough as possible. After allowing a sufficient time for the compost to be well settled, nothing remains to be done, but to begin to plant the trees, in their respective places. As regards season, I consider the fall the best time, if the trees can be procured, but, if not convenient at that season, they should be planted as early in the spring as possible. A good selection of trees is important, for many individuals think large are preferable to small ones. For training, no tree should be more than one year from the bud, and should have a straight clean stem.

Proceed now to open the holes about twelve feet apart, along the inside front of the house, allowing them to extend outside under the arches. Then proceed to plant the trees, keeping the roots as near the surface as possible, spreading them out with great care under the arches, in the fan shape, so that the roots, when the tree begins to grow, will run into the outside border. The planter must also bear in mind, that he is planting trees which will last for years, and, if some extra pains are taken, even if it occupies a little more time to perform the work, he will be amply repaid in the end for his trouble. As soon as the operation of planting is completed, each tree should receive a moderate watering, to settle the earth about the roots. This done, commence setting out the trees along the back wall, in the same manner, only that those at the back of the house, should have all their roots spread out towards the front, and if the house is very wide, there can easily be a neat half-circular trellis put down, to train another row of trees to, having the front posts of it about two feet from the front row of trees. Though the fruit will never be so fine, on such trillises, as that from the trees trained on the rafters of the house, being rather too far from the glass, and shaded partially by the other trees, yet I have often known them to produce very fine fruit.

The planting all completed, which I shall suppose to be done early in spring, the next and principal work will be the pruning. The trees should now be headed down to three eyes, above the lower part of the trellis, from where it is wished to

commence training the trees, rubbing off all eyes below these three, if it is deemed desirable to have handsome shaped specimens.

Fan-training, I think, is the best adapted to the peach, and though most gardeners adopt this plan, few of them seem to carry it out in a proper manner; for, in a great many instances which have come under my observation, a great portion of the trees are unsightly objects, having lost their centre stem before they have grown three or four feet from the bottom of the trellis, and all shoots are laid in, whether they happen to be front or lower, spoiling the regular and beautiful appearance which a well trained tree always presents.

Commence training the top eye as it starts to grow, perpendicular, and the side ones in rather an oblique direction, and, when the centre shoot has grown about two feet, it should be stopped again to cause it to start out lateral shoots. The first year I think it is as well to tie in nearly all the wood the tree makes, as it encourages the roots to lay in a good supply of food, to support the tree another year, while, on the other hand, if there was not much foliage to elaborate the sap, the roots would remain partially inactive, not exercising half the functions they would otherwise have to perform where the tree was covered with foliage, and growing vigorously. I think it is of vast importance to try to establish the trees the first year. The trees will have to be examined once a month through the growing season, to tie in all shoots to the trellis that require it, and be particular to give plenty of air through the day, shutting up close at night, unless the weather is warm; in that case, air may be left on night and day. Syringe freely twice a week with pure water, and water the house inside so that the earth will not look dry or parched.

About the first of January will be the time to commence pruning the trees for the next or second season, cutting down the centre shoot to within eight eyes from where it started from the last season.

The side shoots should also be cut in to two or four eyes, according to their strength: during the summer, all laterals which spring from these, on either the front or *lower* side, should be cut close in as soon as they appear, laying in only those which spring from the upper side, and these at regular dis-

stances, say about a foot apart; being careful to err on the right side, and lay in too little rather than too much; selecting such shoots as will give the tree a systematical and handsome appearance.

The pruning all done, and the shoots tied in their proper places, give air every warm day, in order to keep the buds from starting too early. The trees should be syringed with the following preparation, before they begin to grow, in order to destroy any insects, especially the red spider, which, in our dry climate, is always a great pest, and, if the trees are not examined very minutely, and attended to early, it will be difficult to exterminate them without considerable trouble, and, perhaps, injury to the crop. This preparation, if applied as directed, will stop their ravages, and, if continued once a week, will effectually destroy them:—

To ten pounds of flour of sulphur, add four pounds of quick lime; put them into a tight cask, and then pour boiling water over them just sufficient to slake the lime, adding altogether about twelve gallons, then stir the whole well together, and, as soon as they appear well mixed, cover the top of the cask over with a tight mat, to keep the steam in; then let it stand for a day or more, when it will be well settled and ready for use. Then proceed carefully to turn off the water as clear as possible, and put it away into some other vessel for use, as occasion may require. A pint of this mixture will be sufficient for four gallons of water.

It is also probable, that when the trees are in a growing state, they may be troubled with the *aphis*, or green fly, which may be easily detected by the curling up of the leaves; they may be easily destroyed by a strong fumigation of tobacco, or by syringing with whale oil, soap and water, but the former mode is greatly preferable.

The treatment for the third year will not differ much from that of the last season. The trees will have to be looked over regularly throughout the summer, divesting them of all superfluous wood, and tying in all shoots that require it.

As soon as the wood begins to ripen, let down all the sashes, so that there shall be a free circulation of air all through the house night and day, until the frost begins to be rather severe. This will cause the trees to ripen their wood

thoroughly, and form strong prominent buds. The winter pruning should be done in November or December, and this finishes the labor for this year.

Presuming that all has gone on favorably thus far, a small crop of fruit may be expected the coming season. But I caution the amateur not to try to produce too much fruit, as he will injure his young trees by so doing, unless they are very thrifty; a few specimens only should be suffered to remain, looking rather to the furnishing of the trellis, for a crop the next year, when he may reasonably expect some fine fruit.

As soon as the trees begin to show flowers, the temperature will have to be kept very even through the day, allowing the thermometer to range from 75° to 85°, and at night from 50° to 60°, or even ten degrees lower, without injury, if the night is cold, but it is always best, if there is danger of a sharp and frosty night, to shut the house up early, as a preventive. All syringing should be discontinued till the fruit sets, keeping a rather dry atmosphere, or the blossoms will not set well. As soon as the flowers begin to drop, commence syringing regularly, until the fruit begins to ripen, and then discontinue it till after the fruit is gathered.

When the fruit is done stoning, and the weather begins to be warm, the sashes back and front should be opened, as much as possible, through the day, and as soon as the weather averages a good temperate heat, the sashes should be left open, both day and night, till the fruit is gathered; unless this is attended to, the fruit will have but little flavor. Closing up the house in case of heavy rains, or cold east winds, is of course an exception; but, as soon as the fruit is gathered, the sashes should be removed from the house altogether, and not put on again till frosts set in, when the trees will require some protection from their severity. After the fruit appears to be well stoned, considerable attention should be given to thinning the crop: only a single fruit should be left, at distances averaging six or eight inches apart, all over the surface of the tree: as soon as the fruit has taken its last swelling, such leaves as shade it too much should be partly removed, so that part of the fruit may be exposed to the free action of the sun, which, I think, adds greatly to its flavor.

The fruit being gathered, the routine of culture already detailed should be continued.

The varieties which I think best suited for house cultivation, are the following :—

PEACHES :—Royal George, Royal Kensington, Gross Gallande, Grosse Mignonne, Malta, Noblesse, Old Mixon Free, Early York, and Crawford's Late Melacà.

NECTARINES :—Elruge, Broomfield, Murray, and Red Roman.

Fall River, Mass. March 17, 1847.

ART. VII. *On the Propagation of Stove and Greenhouse Exotics ; in a Series of Letters.* By JAMES KENNEDY, Gardener to S. T. JONES, Staten Island, New York.

LETTER I. *Propagation by Seeds.*

I PRESUME that the design of your valuable Magazine is the improvement of Flora and Horticulture ; and, therefore, I consider it the duty of every practical gardener to contribute occasionally the results of his experience, for the benefit of his younger brethren. With this view, however, I take up my pen, to give the results of my experience, on the various modes of propagating greenhouse and stove exotics, and shall embody such observations as are calculated to render comprehensive the whole subject to even the most inexperienced. I shall arrange the various modes under the following respective heads, and treat of each separately :—

1, Seeds ; 2, Cuttings ; 3, Offsets ; 4, Layers ; 5, Inarching ; 6, Root Divisions ; 7, Leaves ; 8, Suckers ; and 9, Plant divisions.

1. SEEDS.—When an exotic is in flower that will yield seed, it ought to be placed in a situation where it can command the full benefit of the sun's rays, and, if the weather is favorable, it should be abundantly supplied with air and water, in order that the seeds may swell off to their proper size, and get thoroughly ripened ; for, on these two points, depends their future germination when placed in the soil to produce new

individuals. Should the plant, at any time, be exposed to the open air, as is not an infrequent occurrence with inhabitants of the greenhouses in summer time, it should be placed in a situation where showers cannot reach to injure the impregnating and fertilizing part of the frutification. When the seed is ripe, it will rattle in the seed-vessel or pod, and should be gathered in a perfectly dry state, after which let it be exposed to the air, in a shady place, for a few days, that it may still get further hardened, when it may be put up in separate parcels, labelled, and put up in a dry place till required for sowing, (which time varies according to the object in view.) Spring sowing, however, is the most favorable for all seeds, (except in case of imported ones, a quantity of which should be sown as soon as received,) for sometimes seeds will grow when first received, that will not, if kept a few months longer, and the remainder can be sown with those saved at home ; but spring sowing is preferable to any other season ; the plants get a long season for growth, and consequently must be better prepared to stand the severity of the coming winter.

The sized pots I have always been in the habit of using as seed pots, are those of five inches diameter, and three and a half deep, a quantity of which I always get ready previous to the time of sowing. I first have them thoroughly washed, outside and inside, and, when dry, I prepare them in the following manner :—Over the hole in the bottom of the pot, I place a large piece of broken pot or oyster shell, and over this about an inch of finely broken potsherds, about the size of garden peas ; and then fill my pot to within an inch or so of the top, according to the size of the seeds to be sown, with compost previously prepared, composed of two thirds heath soil, and one third fine friable loam, rather light than otherwise. The surface on which the seeds are sown as well as the covering soil, should be sifted very fine. The seeds sown and covered, the whole should be settled with a slight sprinkling of water, from a fine rose watering-pot, when they should be removed to the propagating house, or to a previously prepared hot-bed, when the burning heat is over. Keep the frame-lights pretty close at night, but allow a little air in the middle of fine days, that any rank steam may escape ; the pots should be plunged up to the rims in sawdust, or some such material, and shaded,

during bright sunshine, by means of mats. Due care must be taken to supply them with water when required, but not till it is really needful.

When the rudiments of the second leaf are formed, the pots should be removed to a shaded part of the stove, there to remain till the second leaf is perfectly formed, and the rudiment of the third leaf is visible, when they must be carefully potted off into thumb pots, in compost according to their nature, and again put in a shaded place till they have taken root; when they should be finally but gradually exposed to their respective departments,—the greenhouse sorts to the greenhouse, and the stove kinds to the stove;—and, in conclusion, I beg to say, that the sooner seedlings are potted off the better, as they do not miss their moving so much when potted young.

The young gardener must bear in mind, that the grand feature to be attended to, in propagation by seed, is, that it must fully reach maturity previous to gathering, for on this depends its vigorous and healthy germination. The second condition necessary to successful germination, is heat, and this must be supplied by artificial means. The third condition necessary to insure success, is moisture; therefore water or some equivalent is indispensable; but the quantity given is a matter of importance, as there may be too much or too little. In the first case, the seeds will burst and rot, and, in the second, they will remain inactive in the soil. The fourth condition necessary is air, and this must be regulated by the state of the weather, still bearing in mind, that shading is necessary in bright sunshine.

I think I have extended these remarks to the full legitimate length of one article, and, if considered worthy of a place in your valuable Magazine, they are much at your service, and I shall continue the subject in a future number.

Staten Island, N. Y., April 7, 1847.

Mr. Kennedy may be assured his article is most opportune and valuable. Indeed, we view such articles as this, and that upon the heath, in our last number, by Mr. Cadness, as the very essence of practical knowledge. Could all gardeners, who are able to impart information, but have the same liberal

and expansive views, how much more rapid would be the progress of science among us! We shall look forward to the letters which Mr. Kennedy proposes to write, illustrative of the title of the article, with great pleasure, and do not doubt but that every amateur, or young practitioner, will be impatient to treasure up the practical experience with which his articles will be replete.—*Ed.*

ART. VIII. *Descriptions of Eight New Seedling Verbenas.*
By the EDITOR.

FEW flowers, in the same space of time, have attained that popularity which attaches to the Verbena. Scarcely ten years have elapsed since the introduction of the few original species, and now our gardens abound with varieties of every tint and shade, from the purest white to the deepest purple. During this period, we have described, in our several volumes, every really fine seedling originating in various collections, numbering in all upwards of *fifty*, and we now have the gratification of describing eight entirely new seedlings, selected last year from a bed of some hundred plants, some of which are remarkably brilliant and showy, and quite distinct from any of the older ones.

Now that the verbena is brought to such perfection, in regard to the color, as well as size, of the flowers, new and distinct varieties are not produced with the facility of former years; but, like the dahlia, pelargonium, fuchsia, pansy and other flowers, the selection must be made from hundreds or thousands of plants, so small is the chance of success in a less number. That many new, very distinct and splendid varieties will yet be added to our collections, there is no doubt, and, to those who wish to make the trial, there is a fair field for that object. Unquestionably, edged, tipped, mottled and striped varieties will yet be produced as two-colored ones have already been, and, as less patience is required, in raising seedlings of the verbena than in most other plants, the zealous florist should continue his efforts yearly, until some new and unique tints are obtained.

Gem.—Flowers, fine deep rose, with a distinct cherry centre, and a yellow eye: petals slightly undulated, and little starry: umbels, medium size, compact, and of a good form: habit moderately vigorous: foliage good. This is a most marked and brilliant variety. The numerous heads of flowers which cover a large plant sparkle with all the brilliancy of *gems*. If the flowers were as large, and the petals as smooth, as some varieties, it would be difficult to produce its equal.

Suzette.—Flowers, large, and of the snowiest white, with a pure white eye: petals large, broad, finely formed, and slightly cupped: umbels, large and rather loose, but of handsome form: habit vigorous: foliage thick and good. Until the production of this variety, Feast's white stood at the head of this class: but this excels it, not only in the purity of the white and its clear eye, but in the form of the umbel and flowers.

Queen of the Lilacs.—Flowers, medium size, clear lilac, with lilac eye: petals smooth and flat: umbels, good size, compact, and of a handsome globular form: habit moderately vigorous: foliage good. A good lilac verberna has been a desideratum, and although not so showy a color as some others, it makes a most desirable variety. This is the best we have seen.

Rosy Cluster.—Flowers, very large, clear fulgent rose, with a yellow eye: petals undulated: umbels very large, rather long and compact: habit very vigorous: foliage thick and good. This variety is remarkable for its very large and showy heads of blossoms, which are so compact from the undulation of the petals as to appear as of one large flower. For bouquets, it is a valuable variety.

Variabilis.—Flowers, large, pale blush, tinted at the edges with rose, with a blush eye: petals somewhat undulated: umbels large, compact and of fine form: habit good. This is an exceedingly delicate, and exquisite variety, its blush flowers often assuming a pearly shade, beautifully tinted with rose.

Caroline.—Flowers, very large, bright glossy pink, with a yellow eye: petals broad, well formed and perfectly smooth: umbels very large, rather loose, and of handsome form: habit good: foliage good. None of the rarely *pink* verbenas that

we have seen possess the delicacy of this : its large and satiny flowers nearly hide the small and neat foliage, and give the plant the appearance of one mass of blossoms.

Dove-Eyed.—Flowers, large, of a peculiar rosy lilac, with a deep and very distinct violet eye: petals large, well formed, and cupped: umbels good size, rather compact, and of handsome shape: habit, moderately vigorous: foliage thick and good. This is a variety quite as distinct in its way as Gem: the peculiar dove-colored tinge of the flower, and its fine dark eye, are entirely new, and have suggested a name which is strikingly applicable to this really beautiful variety.

Othello.—Flowers, medium size, deep maroon purple, with pale purple eye: petals slightly starry but nearly flat: umbels very large, full and compact: habit good: foliage small and good. Feast's purple and Gazelle have hitherto been among the best deep purples. This variety has much larger umbels than Gazelle, and thicker petals which resist the hot sun better. The habit is also stronger and the foliage better.

Several other seedlings have been selected, but these are the most distinct, though several are quite new in their way. If further trial should show their merits to be worthy of a name, we shall hereafter describe them.

ART. IX. *Floricultural and Botanical Notices of New and beautiful Plants figured in Foreign Periodicals; with Descriptions of those recently introduced to, or originated in, American Gardens.*

Beck's New Pelargoniums.—It is with much pleasure that we announce to amateurs of this most beautiful plant the flowering, in our collection, during May and June, of nearly all Mr. Beck's seedling pelargoniums, a descriptive catalogue of which we have given, with his excellent article on their cultivation, in our January number, (p. 34.) Some of the kinds are now opening their blossoms, and the improvement over even what have been considered as new and fine kinds is, indeed, most remarkable. All are so splendid that one

scarcely knows which most to admire; but the most striking are Aurora, Hebe's Lip, Competitor and Isabella: no description can do justice to these; they must be seen to be fully appreciated. They will be in the highest state of perfection the latter part of May.

8. GARDE'NIA DEVONIA'NA *Lindl.* The Duke of Devonshire's Gardenia, (*Cinchonacæ*.)

A stove plant; growing two feet high; with white flowers; appearing in summer; a native of Sierra Leone; increased by cuttings; grown in leaf mould and peat. *Bot. Reg.* 1846, p. 63.

In our last volume, (XII. p. 28), we described the new and splendid *G. Stanleyana*, and the present plant is one introduced at the same time, and by the same indefatigable collector of African plants, Mr. Whitfield. "This glorious plant is a native of Sierra Leone, and is, perhaps, the finest of its noble race, and is, we trust, worthy of the name which we have ventured to confer upon it. Handsome as Lord Derby's gardenia certainly is, it is as far removed from this as an earldom from a dukedom." The flowers are described as eleven inches long, "pure white at first, but, after a time, changing to a light straw color, and look much like then a huge white lily." The plate certainly represents a most magnificent plant, and the two species which are here mentioned must be to the hothouse what the beautiful Japan lilies are to the conservatory, the greatest ornaments throughout the summer and autumn. The foliage is large, broad and handsome.

Mr. Glendenning, who furnished the plant from which the drawing was made, states, that these species can be made to bloom at a variety of seasons, as freely as the Cape Jasmine. To do this, it is only necessary to place them, after flowering, in a high temperature of at least 80°, with moisture, plunge in bottom heat, and syringe freely. Afterwards expose them to a lower temperature, and plenty of light, and the buds will be set. They may then be removed to the greenhouse, where their blossoms will freely expand. (*Bot. Reg.* Nov.)

9. ÆSCHYNA'NTHUS MINIA'TUS *Lindl.* Vermilion Eschynanth. *Gesneracæ*.

A stove plant; growing two feet high; with vermilion flowers; appearing in summer; a native of South America; increased by cuttings; grown in peat and leaf mould. *Bot. Reg.* 1846, p. 61.

This is another of the brilliant *Æschynanthuses*, introduced, through the exertions of Messrs. Veitch's collector in Java.

It is a fine companion to *Æ. Lobbianus*, and "much finer" than Vanden Bosch's *Æschynanth*, noticed at p. 79. The flowers are vermilion colored with a yellow star in the throat, and they are produced at the axils of the leaves in short clusters. It is of the easiest cultivation in a damp stove, where it produces flowers abundantly. (*Bot. Reg. Nov.*)

ART. X. Notice of Some of the Plants of New England.

By WILLIAM OAKES.

Paronychia argyrocoma Nutt. Gen. 1. 160. Torrey & Gray, 1. 171.

This beautiful plant was probably first collected in the Notch of the White Mountains, by Drs. Chapman and Alexander, in the summer of 1843. In the same year, I found it in the gravel of many of the recent slides of the Notch, and Mr. Tuckerman has since found it in unmoved soil on a flat rocky knoll, near the summit of Mount Crawford, several miles distant from the Notch. It has not been found elsewhere north of Virginia.

Sibbaldia procumbens Linn. Torrey & Gray, 1. 433. var. *quinquedentata*.

In the alpine region of the White Mountains, 1846. Of my abundant and luxuriant specimens, almost all the leaves have five teeth, the two outer ones much smaller. The petals are generally obovate and obtuse, sometimes oblong-elliptic and acute. The flower is sometimes six-parted, with six stamens and nine or ten ovaries in two irregular circles. *Gœum macrophyllum* Willd. Torrey & Gray, 1. 421.

Borders of woods at the base of the White Mountains, not in the alpine region.

Gnaphalium supinum Linn. Torrey & Gray, 2. 429.

On the sides of Mount Washington, and other places in the alpine region of the White Mountains. 1843.

Solidago humilis Herb. Banks. Torrey & Gray, 2. 206.

The dwarf alpine state of this species, (*alpina*), common in the alpine region of the White Mountains, is *S. Virga-aurea*, var. *alpina* of Bigelow, and Torrey & Gray, 2. 207.

Veronica alpina Linn. var. *Wormskioldii* Hook. Bor. 2. 201.

Alpine region of the White Mountains. Pickering & Oakes, 1825.

Euphrasia officinalis Linn. D C. Prod. 10. 552.

Stem dwarf, simple; leaves roundish, with obtuse teeth; flowers very pale, and extremely minute. It is probably *E. micrantha* Reichenbach, Fl.

exc. p. 358. See Koch Fl. Germ. 2d. ed. 2. 628. In the alpine region of the White Mountains. 1844.

Festuca ovina, var. *vivipara* Linn. *F. vivipara* Smith.

In the alpine region of the White Mountains, 1843.

Luzula arcuata Hook. Fl. Lond. t. 153. *Juncus arcuatus*, Wahl.

In the alpine region of the White Mountains. 1843.

Senebiera Coronopus Poiret. 'Torrey & Gray, Flora, 1. 115.

Abundantly naturalized about Newport, Rhode Island. Robbins, Sept. 1829.

Draba caroliniana Walter. Torrey & Gray, 1. 109.

Salem, Massachusetts. Pickering. 1824.

Stellaria uliginosa Murray, Gott. 55. *S. aquatica*, Pollich. Torrey & Gray, 1. 186.

In Chester, New Hampshire. Dr. Robbins, June, 1829.

Arenaria squarrosa Michx. Torrey & Gray, 1. 179.

In Block Island. Dr. Robbins. Sept. 1829.

Oxalis corniculata Linn. Fries, Novit. 2d. ed. 136.

Block Island, Dr. Robbins. Sept. 1829. Stem strongly pubescent, diffuse, with many procumbent branches at base. Stipules well developed. Root not stoloniferous, apparently annual. There is some confusion among authors with respect to *O. corniculata* and *stricta*. According to De Candolle and Torrey, *corniculata* is perennial, and *stricta* is annual. According to Linnæus and Fries, the reverse is exactly true of both. Our common American *stricta* is sometimes troublesome in gardens with its abundant stoloniferous perennial roots.

Melilotus leucantha Koch. Torrey & Gray, 1. 321.

Partially naturalized in Rowley and in Shirley, Mass., and in other places in New England.

Ammannia humilis Michx. Torrey & Gray, 1. 480.

Danvers, Massachusetts. Dr. Nichols. 1818.

Saxifraga Virginienensis Michx. Torrey & Gray, 1. 571.

Var. *chlorantha*. Petals pale green, instead of snow white, as in the common variety. The margins and backs of the petals are also sprinkled with short hairs like those of the rest of the plant, but paler, and not so uniformly glandular. Topsfield, Mass. 1842.

Archangelica peregrina Nutt. Torrey & Gray, 1. 622.

This species was first found in Salem, by Dr. Pickering, in 1824. I have since found it in many places on the coast of Massachusetts and New Hampshire, and also in the alpine region of the White Mountains.

Càrum Càrui Linn. D C. Prod. 4. 115.

Naturalized by road sides in many places in Massachusetts and New Hampshire.

Loníçera flàva Sims. Torrey & Gray, 2. 6.

Monroe, Connecticut. Dr. H. C. Beardslee. 1829.

Cy'nthia virgínica Don. Torrey & Gray, 2. 469.

In Monroe, Connecticut. Dr. H. C. Beardslee. 1830.

Erythræa spicàta Persoon. D C. Prod. 9. 60.

Erythræa Pickeringii Oakes, Hovey's Mag. Vol. 7. p. 179. Soon after this species was published, I obtained specimens of the European *E. spicàta*, and ascertained by comparison that it was identical with my own. Persoon erroneously states that *E. spicàta* grows in moist meadows in Europe, which induced me to consider it different from our salt marsh plant.

Halènia defléxa Grisebach, in Hook. Fl. Bor. 2. 67.

Swértia defléxa Smith. *S. corniculàta Michx.* In Orono, (Indian Old Town,) Maine. 1828.

Convólulus panduràtus Linn. Torrey, Fl. 1. 225.

New Milford, Connecticut. Dr. Robbins. 1829.

Cúscuta epilinum Weihe. D C. Prod. 9. 452.

On flax in fields in Rowley, Massachusetts. 1826.

Linària elátine Miller. D C. Prod. 10. 268.

Naturalized in Ipswich, Massachusetts. 1825.

Mimulus alàtus Solander in Ait. Hort. Kew. D C. Pr. 10, 369.

New Haven, Connecticut. Dr. Robbins. 1828.

Pedicularis lanceolàta Michx. Hook. Bor. 2. 107. *P. pállida Pursh.*

New Haven, Connecticut. 1828.

Stàchys palústris Linn. Curtis. Fl. Lond.

Naturalized in Ipswich and other parts of Essex County, Mass. Exactly the European plant.

Stàchys arvènsis Linn. Curtis, Fl. Lond.

Naturalized abundantly along the road-side from Kittery to York, Maine. Also in Cambridge, Mass. 1818.

Scutellària párvula Michx. Benth. Lab. 440.

In East Haven, Connecticut. Dr. Robbins. 1828.

Amaránthus pùmilus Raf. Nutt. Gen. 2. 201.

At Gay Head, Martha's Vineyard, Mass. 1829.

Salicórnia ambigua Michx. 1. 2.

At Gloucester, Mass. Pickering. 1825. At Martha's Vineyard and Plymouth, Mass. Oakes.

Polygonum gláucum Nutt. Gen. 1. 254.

At Martha's Vineyard, Mass. Oakes, 1829. At Block Island. Dr. Robbins.

Euphórbia Esula Linn. Eng. Bot. 20. t. 1399.

In Newbury and other towns in Essex County, Mass. A pernicious weed, thoroughly naturalized, and not easily to be exterminated from the places in which it is once introduced. 1828.

Liquidambar styraciflua *Linn.* Michx. f. Arb. 3. t.

In Greenwich and Stamford, Conn. Dr. Ives. Dr. Robbins.

Aristida gracilis *Elliott.* Fl. 1. 142. Gray, Gram. & Cyp. 1. 9.

At Danvers, Mass. 1819. At New Bedford, T. A. Greene, Esq. At Sandwich, Mass.

Aristida tuberculosa *Nutt.* Gen. 1. 57. Gray, l. c. 1. 10.

At Plum Island, Mass. Oakes. 1829. At Milford & Stratford, Conn. Robbins. 1829.

Aristida purpurascens *Poiret.* Gray, l. c. 1. 8.

At Nantucket, Mass. Oakes. 1829. At New Haven & Lyme, Conn. Westfield, Mass. and Block Island. Robbins. 1829.

Setària itàlica *Pal. de B.* Torrey, Fl. 1. 153.

Uxbridge, Mass. Robbins.

Panicum amarum *Elliott.* Fl. 1. 121.

At Milford, Conn., Robbins, and at Stratford in the same state, Dr. H. C. Beardslee.

Tripsacum dactyloides *Linn.* Gray, Gram. & Cyp. 1. 40.

Bridgeport, Conn., Dr. H. C. Beardslee. 1829.

Cénchrus echinatus *Linn.* Torrey, Fl. 1. 68.

East Windsor, Conn. Robbins. 1829

Festùca fasciculàris *Lamarck.* Torrey, Fl. 1. 122.

Greenwich and Bridgeport, Conn. Dr. H. C. Beardslee. 1829. Block Island. Robbins.

Andropogon Virginicus *Linn.* Torrey, Fl. 1. 156.

Nantucket, T. A. Greene, Esq. In Killingworth, Connecticut, and North Providence, Rhode Island. Robbins. 1829.

Andropogon macroùrus *Michx.* Torrey, Flora. 1. 156.

At Nantucket and Martha's Vineyard, Mass. 1829.

Cypèrus Grayi *Torrey.* Cyp. 268.

In Martha's Vineyard, Massachusetts. 1829. Also at Plymouth Beach and Plum Island, Massachusetts.

Cypèrus erythrorhizos *Muhl.* Torrey, Cyp. 280

Nantucket, Mass. 1829.

Scirpus O'neyi *Gray,* in Boston Journal Nat. History.

On the borders of a small brackish pool in Martha's Vineyard, Mass. 1829.

Scirpus Robbinsii. *Eleócharis Robbinsii* *Oakes* in Hovey's Mag. Vol. 7. 178.

In Uxbridge, Mass. Robbins. This species is, as I supposed, found in almost every part of New England.

Ipswich, Mass., April, 1847.

REVIEWS.

ART. I. *A Report on the Trees and Shrubs growing naturally in the Forests of Massachusetts. Published, agreeably to an Order of the Legislature, by the Commissioners on the Zoological and Botanical Survey of the State.* 1 Vol. 8vo. pp. 547. Boston, Dutton and Wentworth, State Printers. 1846.

[Concluded from page 185.]

THE many fine native woody shrubs, and some of the more delicate forest plants, or the useful medicinal ones, are duly noticed in portions of the Report, with suggestive remarks. In the opinion of Drs. Torrey and Gray, there is no essential difference between our High Cranberry (*Viburnum ópulus*, L.), and the European *Guedder Rose*, a variety of which latter is propagated by gardeners as the well known snow ball tree. Some other fine species of *Viburnum* are thus closely related: and, doubtless, experimental sowing of the seed might produce as remarkable results as in the snow ball tree. And while on the improvement of varieties by successive sowing of seed, we are reminded of some very just and valuable remarks of this Report on the subject of the Currant family:—

“ This family includes only one genus, which comprehends the Currants and the Gooseberries. They are either spiny or unarmed shrubs, natives of the mountains, hills, woods and thickets of the temperate regions of America, Europe and Asia, but unknown within the tropics, or in any part of Africa. They are found particularly about mountains. Most of the species produce agreeable, refreshing, subacid fruits. The Black Currant, *Ribes nigrum*, a native of Siberia and northern Europe, is cultivated for the pleasant tonic and stimulant properties possessed by a jelly made of its ripe fruit. The Red Currant, *Ribes rubrum*, found wild in the mountainous woods of Britain and other northern countries of Europe, and in the northern part of America, and the White, which is a variety produced from this by cultivation, are, in most places, justly valued for their uses in cookery, as a dessert, and as affording a cooling and wholesome drink. The common Gooseberry, *R. uva crispa* or *grossulària*, a native of the same regions, but hardly known in gardens on the continent of Europe, while the size and richness of its fruit are the pride of English, especially Lancashire horticulture, is generally but rather unsuccessfully cultivated here for its use in

tarts and pies, and sometimes as a dessert. The Missouri Currant, *R. aureum*, has been introduced on account of the luxuriance of its growth, and the beauty and fragrance of the flowers; and another from California, *R. speciosum*, which has been erected into the genus *Robsonia*, deserves to be introduced."—p. 419.

The Round-leaved Gooseberry, (*Ribes rotundifolium*, L.)

"No native gooseberry promises so much as this. The introduced species often refuses to flourish in our gardens, even with careful cultivation. It is not perfectly adapted to our soil and climate. But this native one is; and, if the art of cultivation can make as great a difference in it as has been made in the wild European gooseberry, the fruit will be the finest of the kind in the world. The cultivated species, on its cold, northern, native mountains, is small, hard, hairy and acerb. Cultivation points at its large, beautiful, firm, sweet, delicious fruit, as the triumph of art. This change has been produced by long and careful culture. What may not be made, by similar efforts, of a fruit perfectly suited to our climate, which, in its natural state, is pronounced delicious!

"Found in mountainous and rocky places from Massachusetts to the mountains of North Carolina, and west to beyond the Rocky Mountains."—p. 421.

Of fine, wild, native species and varieties of the Raspberries, we are informed that—

"The wild RED RASPBERRY, *R. strigosus*, not inferior to the cultivated, and very nearly like it, and the HIGH BLACKBERRY, *R. villosus* and *R. frondosus*, and some varieties of the LOW BLACKBERRY, *R. Canadensis*, of Torrey and Gray, are delicious and wholesome fruits. They differ much in different localities. This circumstance is worthy of consideration with those who mean to attempt to improve these fruits by cultivation. The variety of High Blackberry found at Fall River and around Buzzard's Bay, is superior to any that I have tasted, in the vicinity of Boston."—p. 429.

We have already alluded to the practical value of the Common Locust tree; beside this, it is an universal, and deservedly so, favorite of all, whether we take into consideration the delicacy of its foliage, or the snowy grace of its pendent blossoms. Of late years, its cultivation has been much checked in consequence of the extensive ravages of the locust borer, an insect of insidious habits, and of destructive tendency. Premiums, we believe, have been repeatedly offered for certain and sure preventives of its fatal evil:—

“An unexpected remedy has, however, been suggested by the success of Joseph Cogswell, Esq., in the cultivation, some years ago, of a large plantation of the locust. He found that, when it forms a wood, those trees only are attacked by the worm which form the outskirts, exposed to the sun and free air. Whether it is that the insect parent of the worm delights, as many do, in the sun light, and avoids the shade of the woods, or from whatever cause, it was found that all the interior of the plantation was free from its attacks. If this conclusion should be confirmed by further experience, it will be best, whenever the tree is cultivated for its timber, to plant it in masses of several acres in extent, and to substitute, in the sunny and exposed situations which it has usually held, some of those numerous trees which flourish best in them.”—p. 463.

Some promise of future valuable results may be anticipated by experiments on our native grapes by seed-sowing, to a greater extent than has already accrued. Of the Common or Fox grape, (*Vitis Labrusca*, L.,) we are told of a remarkable variety, the Summer White Grape:—

“One of the most remarkable varieties is the Summer White Grape or Early White. In appearance, it presents some peculiarities. The leaves are on rather long, bristly and downy footstalks, with a rusty down closely covering the under surface. The fruit is two thirds or three quarters of an inch in diameter, round, pale green, or of the translucent color of the Malaga grape, when just ripe, afterwards turning red. It is, in some varieties, very agreeable to the taste. It ripens in the last of July, and in August and September. I have gathered some of this variety in the woods, decidedly superior to the Isabella grape.”—p. 468.

We confess ourselves wholly unacquainted with such a superior wild variety, or, indeed, of any such kind, which even approaches to a well ripened Isabella: and doubtless here the old adage applies, *de gustibus non*, &c.; yet how far hardier or better varieties may not be artificially produced, no one can affirm without previous experiment.

The peculiar charm of some happy blending of species of flowering shrubs by the accident of Nature is pleasantly set off in the following description of what every admirer of the rural must have noticed in this vicinity:—

“On some lanes in Brookline and other places in the vicinity of Boston, a natural hedge of barberry, sweet briar, wild rose and privet has formed a most graceful border for the road-side. This, which gives an air of wildness and retirement perfectly suited to the purpose for which much of this

suburb is used, has, in several places, been made to give place to the stiff, puddingstone wall ; and the change is called *improvement*.

“ If the suckers and lower branches are removed, and only the upper branches allowed to grow, the barberry forms a very beautiful little tree, and sometimes shoots to the height of ten feet. At times we find such a tree by the road-sides, surprising us by its gracefulness and the beauty of of its bright yellow flowers in June, and of its rich scarlet berries and its fading orange-scarlet leaves in autumn.”—pp. 523, 524.

We have thus presented to our readers a more than usually long notice of this remarkable document, of which every page seems replete with interest, both of things old and new, rare and well known. Accompanying the text of five hundred and thirty-four pages, are seventeen copperplate prints of specimens of the following trees in outline, done with a beauty and accuracy as creditable to the artist as is the subject matter to the author. These plates consist of figures of the White Oak, *Quercus álba*, leaf and acorns, &c. ; the Overcup Oak, *Q. macrocarpa*, leaves and fruit ; the Rough or Post Oak, *Q. stellàta*, leaves and fruit ; the Swamp White Oak, *Q. bicolor*, &c. ; the Chestnut Oak, *Q. castànea* ; the Rock Chestnut Oak, *Q. montàna* ; the Black Oak, *Q. tinctoria* ; the Scarlet Oak, *Q. coccínea* ; the Red Oak, *Q. rùbra* ; the Bear Oak, *Q. ilicifòlia* ; the Shellbark Hickory, *Càrya álba* ; the Mockernut Hickory, *C. tomentòsa* ; the Pignut Hickory, *C. porcìna* ; the Bitternut Hickory, *C. amàra* ; the Nettle Tree, *Céltis occidentàlis* ; the Tupelo Tree, *Nyssa multiflòra*.

We cheerfully recommend such a treatise as this to the friends of Horticulture, feeling that the style and manner in which the subject is treated will be peculiarly interesting—especially to the floriculturist, who engages in a love for beautiful native shrubs and forest flowers ; and to the arboriculturist will it prove a useful companion and guide, to furnish him with important hints, or to serve as a pleasant source of instruction.

R.

March 10, 1847.

ART. II. *The New England Book of Fruit; containing an Abridgment of Manning's Descriptive Catalogue of the most valuable Varieties of the Pear, Apple, Peach, Plum and Cherry, for New England Culture: to which are added the Grape, Quince, Gooseberry, Currant and Strawberry; with outlines of many of the finest sorts of Pears drawn from Nature; with Directions for Pruning, Grafting, and General Modes of Culture.* Third Edition, Revised and Enlarged. By JOHN M. IVES. 1 vol. 12mo. pp. 144. Salem. W. & S. B. Ives.

THE increasing interest in the subject of Pomology, and the eagerness to procure information, may be, in some measure, perceived by the recent publication of works treating upon the subject. Almost every individual who possesses a spot of ground is desirous of planting a few trees, but a want of some information upon the subject often deters them from their object. The larger and more complete works are too expensive for those who have but little space for gardening purposes, and a manual like the *New England Book of Fruits* comes very opportune to the many who wish for something more than a mere catalogue of names.

In the preface to this edition, the author informs us he has brought together "the experience of practical cultivators in a condensed form and at low price." The original descriptions of Mr. Manning, as they appeared in his *Book of Fruits*, (Vol. IV. p. 185,) are retained, and many additions have been made to his list. The present edition contains a descriptive catalogue of 69 varieties of pears, 55 of apples, 24 of peaches, 29 of plums, and 19 of cherries; also currants, gooseberries, strawberries, quinces and grapes. The outline engravings which appeared in the second edition also accompany this volume. Some few fruits have been added by Mr. Ives and addenda to those originally described; and some of the original descriptions struck out, in order, we presume, to have the book contain about the same number of pages.

It is unnecessary for us to again recommend a work containing a great portion of the experience of Mr. Manning for twenty-five years; for, although many new and fine fruits

have been brought to notice since the volume first appeared, the descriptions which were made by him are exceedingly valuable, as they were the result of many years' careful observation. We therefore commend the work to the attention of all who need a manual to aid them in the selection of a few choice fruits for their gardens.

We have only to regret that the size and form of the work have been reduced: if the present edition had been uniform with the last, it would have, we think, been preferable to its present form, in which the pages are so reduced as scarcely to admit of the largest engravings. The title-page is accompanied with a colored vignette.

MISCELLANEOUS INTELLIGENCE.

ART. I. *General Notices.*

Destruction of Insects by Hot Water.—Foremost among universally troublesome insects, stands the SCALE, of various species. This gentleman shelters himself beneath his flat shield so securely, that there is no getting him to move, or if he is dislodged it is only to leave behind a brood yet worse than himself. Hitherto he has baffled everybody. It has been proposed to glue him down by a wash of paste or gum water, to grind him to pieces by incessant rubbing, to kill him with poisons more subtle than those provided for her friends by Sir EDWARD LYTTON'S "Lucretia;" but somehow he always reappeared, and not unfrequently seemed to be invigorated by the applications in question. At last it has been ascertained by Mr. GORDON, the Superintendent of the Ornamental Department, in the Garden of the Horticultural Society, that the Scale may be dealt with effectually by means of—hot water, which seems to dissolve him. Water of the temperature of 140° will annihilate the Scale, and all his young ones, eggs included, and will not injure the bark of trees on which he feeds. It may be applied by a syringe or a sponge; all that is indispensable is, that it shall come in contact with him. It may be urged, that if water at the temperature of 140° will not injure bark, it will leaves. But, in the first place, it is possible to attack the Scale when plants have no leaves; in the second place such water will not hurt hard leaves; and thirdly, if the leaves are killed, they will grow again, so that the worst consequence of this application to plants is a temporary loss of beauty instead of a permanent and increasing loss of health.

It is not improbable that this method will be found applicable to other in-

sects besides the Scale. We learn, indeed, from a correspondent that “a *pharmacien* of Macon has made use of hot water against some of the insects that attack the Vine in France, particularly a species of *Pylalis*, known under the name of *Ver de la Vigne*, the ravages of which, in certain departments, almost exceed belief. After various attempts to destroy it by fumigations with sulphur, corrosive washes, &c., the plan was adopted of attacking the insect in the state of chrysalid in the fissures of the bark where it lodges, by pouring boiling water over the stocks. This mode of proceeding does not appear to injure the wood, or to impair the vegetative powers of the plant, for Vines that were so treated gave a much larger produce than those in the neighborhood where the insect was allowed to remain undisturbed.” We hope to be able to lay before our readers some details concerning this gentleman’s process.

With the Gooseberry Caterpillar, another and very different, but equally effectual method has been employed for some years by our correspondent “F. H. S.”

“In dry weather, about the end of March or beginning of April, two men go round the garden with two wheelbarrows, the one full of maiden soil, the other empty; the surface soil for 2 inches deep, in a circle of two feet diameter, is removed from under each bush, and replaced with the maiden soil, and as soon as the leaves begin to appear, a light covering of quicklime and soot is spread on the new soil, lest a few of the eggs might happen to have been left behind.”

The explanation of this is obvious. The young Gooseberry Caterpillars (see vol. i. p. 516) or the chrysalids of the Gooseberry Saw-fly (vol. i. p. 548), lie all winter in ground about the roots of the bushes; in the beginning of April, they revive or hatch, and immediately climb up to the leaves. It is therefore obvious, that if the top soil is removed as above recommended, the enemies are carried away from their prey, and having no food when they are revived or born, perish. We should, however, mix lime with the old soil when it is removed, for the purpose of killing the chrysalids; the caterpillars will die of themselves.

Here we have a remedy which cannot fail, because it is dependent upon the habits of-life of the insects themselves; and we doubt not that an ingenious man of leisure, well acquainted with the facts of insect existence, would devise similar methods of dealing *effectually* with other species which as yet have baffled human skill. In some measure this has been done in the case of the Curculios, which ravage our apple trees; and in France, a Mr. BLAUD has completely overcome the enemies of his Olives, by a proceeding very like that which “F. H. S.” finds so certain with his Gooseberries and Currants.

The Olive suffers greatly from the ravages of certain moths, whose caterpillars attack not only the leaves, but the flower-buds and fruit, and thus produce incredible mischief. These moths, called *Tinea olivella* by Fabricius, have been made, it seems, into two genera, by M. DUPONCHEL, who calls them *Elachista* and *Cecophora*, although they appear to be not even different species! There are three broods of them in the year, of which

the first is the only one that is unattackable. The others drop to the ground, creep into some dead leaf or cavity, and there undergo their transformations. It therefore occurred to Mr. BLAUD that if, shortly before these caterpillars drop to the ground, he were to dig a ditch round his Olive trees the caterpillars would fall into it; and that then, by throwing back the earth, he would bury them alive. He tried the method, and found it answer perfectly.

Another Olive-scurge is the *Oscinis* or *Dacus Oleæ*, a little fly, which deposits its eggs in the Olive fruit, where they hatch and become a grub, which feeds upon it. These grubs in the autumn crawl forth, descend the branches, and bury themselves an inch or two below the surface, where they undergo their transformations and pass the winter. Mr. BLAUD buries them, too, by throwing 18 inches of mould over the soil at the foot of the Olive trees, and beating it down. Out of this tomb the flies never emerge.

These facts, and twenty others, prove that if we still suffer from the attacks of our insect enemies, it is the fault of our negligence, or ignorance, or both, and that a study of the habits of these minute creatures, if its results are applied by men of skill and judgment, will reduce them, as it has reduced other living things, entirely under the dominion of MAN.—*Gard. Chron.*, 1847, p. 203.

The Cultivation of the Calceolaria as an Annual.—As the Calceolaria may be grown as an annual, I shall begin treating of it as one of those plants that can be sown and flowered the same season. Those who have not got any seed should get some immediately; it can now be obtained from any seedsman, and, as they are plentiful in most parts of the country, and bear seed freely, the seed can be got cheap. The seedlings, if treated in the following way, will flower in July, August, and September. The seed should be sown in a slight heat, not below 55 degrees, nor above 65 degrees, because, if higher, the seedlings will draw up long and slender, too much so to bear handling well; for they must be transplanted as soon as they have three or four leaves, and the sooner it can be done the better. The soil should be loam, leaf-mould, and sand, very fine. As the seed is very small, it should scarcely be covered with the soil; a little moss put over the pot until the plants begin to spring, will be quite sufficient, but it must be removed before the plants can be drawn off with it, as there is some danger of that sometimes. The soil for the transplanting should be a little stronger and coarser than what they were sown in. They may be put in at about one inch apart, each way, for the first planting, and then the largest ones removed as they show themselves, to give both the weaker ones and themselves more room. They may be potted at once, or they may be again transplanted into pans or boxes, to save room and pots; for, by that time, pots will be in great demand for the many things that are easier planted out, if previously well established in pots. Meanwhile, the calceolarias will be growing on in the boxes, and, if lifted carefully and potted, just when the first pots are emptied into the flower garden, they will not be much later in flowering than if they had been potted after the first transplanting. The soil should be richer and coarser every time they are shift-

ed, until they are put into six or eight inch pots, where they will flower as well, and often better, than those obtained at a high price from the dealers. Where the grower does not intend competing at exhibitions, but simply requires his plants for the decoration of his garden, I would advise him to adopt this plan, whereby he will be supplied with little more cost than his trouble; and this would be comparatively nothing if we take into account the number of plants he could have for the price of the very cheapest plants he could buy. Besides, he would be likely to obtain far better flowers. Any person who has been in the habit of raising seedlings, knows what an amount of pleasure he has experienced on seeing a beautiful child of his own, if I may use the expression, showing its face for the first time. I am sure that any person trying this plan will have a hundred flowers out of one packet of seed, as good as the one flower he could have bought at the same price. And, whenever the flowers show themselves to be unworthy of room in the inside, there will always be a place outside, in which any thing in flower will look better than a blank, or a plant out of flower. Where there is not much room for wintering them, none but the very best need be kept; the rest, having ripened their seed, may be turned out; and the pots may be used for some of the plants in the flower-garden before the frosts set in. There is no plant I know that is so easily crossed as the *calceolaria*, for the herbaceous and the shrubby kinds cross as readily together as any of the shrubby or herbaceous ones taken by themselves. The way I generally do, when I have decided on what two flowers I wish to cross, is thus:—With a knife I scrape the pollen from the anther of the one, and apply it to the stigma of the other with the same instrument, taking care to have the anthers removed before they burst. Where there is to be more than one cross effected upon one plant, there will be something needed to show which flowers are crossed with this or that variety. The best and most simple method is to use different colors of thread, tying a distinct color to each flower, and keeping a note of the cross in a book; by this means, when the seed is ripe, it is easy to know from what flowers it was obtained. I recollect, some years ago, just at the beginning of the *calceolaria* mania, to have been in the house of a great grower, and his flowers were marked with thread of different colors; and I believe he reaped the benefit of his colors, for he raised some of the best flowers that appeared for some time after that, and got great prices for them. But every thing of that kind has its day, and I believe he has now no better flowers than his neighbors.—(*United Gardeners' Journal*, 1847, pp. 97, 98.)

The Cultivation of the Dahlia.—The following remarks on the management of this fine autumnal flower, are from a Descriptive Catalogue recently sent us by the author, Mr. Charles Turner, of Chalvey, near Windsor, one of the most successful cultivators around London. Mr. Turner was formerly with Mr. Brown, of Slough, well known not only for the superior specimens of blooms which he has repeatedly exhibited, and taken the highest prizes, but for the production of many of the finest varieties which have been raised. We therefore make no apology for the length of his observa-

tions, confident that every amateur will find them of the greatest assistance in the growth of superior flowers :—

“ *Culture of the Dahlia.*—Having been frequently solicited to give the particulars of my system of cultivating the Dahlia for exhibition, I beg to offer the following directions, as the result of considerable experience, attended with uniform success, from 1834 to the present time. During this period I have grown the ‘King of Autumn’ in four different localities, and in as many different soils. The ground I occupy at present, differs materially in its nature, and consists of old black vegetable garden mould, stiff loam, and sandy or peaty loam.

The finest flowers are produced with less labor and attention on the latter, to which, of course, I give the preference ; and I would recommend to those beginning the culture of the Dahlia, or others selecting a new piece of ground, to choose a moist, light part of the soil, for flowers that produce green, hard centres, and likewise a convenient situation for giving them plenty of water, as their rapid growth causes them to produce flowers with perfect centres ; when those flowers that generally come thin after their first blossoms, should have an open situation and heavy soil, in order to produce slow growth. The Marquis of Aylesbury, Hudson’s Princess Royal, &c., are suitable to the former ; Lady St. Maur, Beauty of Sussex, and such flowers, to the latter situation.

Planting.—The ground having been well turned, or thrown up in ridges, during the winter, levelled when in a dry state late in March, or early in April, and well dug previous to planting, I proceed to mark the distance ; which should be six feet from row to row, and five feet six in the rows. This will not be found too much ; as large flowers can never be produced, if the plants once become drawn.

A few spits of light rich soil, well-mixed in the spot where the plants are about to be placed, will cause them to take hold, and be established, in much less time ; and, if the ground is poor, the same quantity of rotten manure mixed in underneath, will also be of great benefit.

The last week in May, or the first week in June, is the proper time to commence planting. Select those plants that are short, stout, and fast swelling ; and avoid those that have stood too long in the pots, and have become stunted in the points, and hard in the leg. If such cannot be avoided, it would be a saving of time to re-pot, and place them in a brisk heat. I would recommend, also, that the young plants should be repotted, as soon as received from the nursery, into four-inch pots, and placed in a cold frame, free from slugs, and to be kept growing, though slowly, giving all the air possible in fine weather, so that the stems of the plants may be of a dark green color, short-jointed, and of a healthy appearance. Green fly should not be allowed to exist amongst them. By attending to these simple means, it is easy to lay the foundation of future success, which cannot be obtained with bad plants.

Stake them at once with one large stake, to be permanent, and secure the plant with a strong piece of bass, sufficiently loose to allow the stem to swell. Add two small stakes at right-angles, to which the plant must

also be secured ; this will keep it in a firm position during the worst weather. Add large stakes as the plant advances, and keep the side-branches secured. In this particular, there is generally some neglect ; by deferring the tying until it can be done all at once, an unexpected high wind may strip the plant of half its branches.

I must strongly impress on those who wish to obtain fine large flowers, the importance of tying the branches "out," not up in a bunch like a wheat-sheaf, which is too often the case ; as it is essential that the sun and air should circulate freely through the plant, as well as around it.

Thinning.—Under this head, no definite rule can be laid down. Never allow the plant to become full of small branches, and then removed at once ; all superfluous shoots should be cut away as the plant progresses. It is also injudicious to subject each variety to the same amount of thinning ; for, by such treatment, as much injury will be done to some kinds as good to others. Those that are generally too large and coarse must be spared ; when such varieties as require size only should be thinned considerably. As I before observed, no precise rule can be laid down ; and nothing but close observation in this important part will make the operator perfect.

Nearly the same rules apply to disbudding. Those that it is necessary to reduce in size must be deferred until a later period, which will bring the flowers more compact, with smaller petals, and better general form. Information will be obtained on this part of the subject, by referring to the annexed catalogue, which cannot be given in detail here.

Shading of Blooms.—Here the enthusiast often makes a sad mistake, by being too anxious, giving himself extra trouble, and, at the same time, spoiling the blooms he so much wishes to preserve, by shading them too long before they are wanted ; shading out of character many of the light flowers, and making all tender, and less able to bear a journey, or exposure when put up for competition. It is requisite to shade some light flowers, and some of the yellows, earlier than others, in order to produce them clear and distinct : when, on the other hand, those with slight tips, or marking, must be deferred ; otherwise, the face of the bloom would be without its characteristic feature—indistinct blush, instead of the attractive tip or edge.

The time required for shading before a given day when the blooms are wanted, must, in a great measure, depend on the weather. Four or five days will be sufficient for an early show, but, as the season advances, extend the time ; and secure the buds or young blooms likely to be good, from friction against the neighboring blooms and foliage, by tying them to stakes or parts of the plant.

There are many kinds of shades in use for protecting the blooms, of various degrees of merit. Those I prefer are made of tin, painted white. A spring in the ferule attached to the side of the shade fixes it at any height it may be required ; the stalk of the bloom is then crossed, and firmly secured to the stake, leaving the bloom fixed under the centre of the shade.

Pots, inverted on what are termed tables, are desirable for some varieties. I do not prefer them for general use ; one great disadvantage being the time occupied, in fixing the bloom, being double that of the shades above

described. Flowers with weak foot-stalks are best secured under pots. Avoid any contrivance that will not admit the air freely.

Those who have grown the Dahlia for exhibition will be fully alive to the importance of keeping down insects, more particularly the common enemy, the earwig. Many plans are adopted for this purpose : the most common, and, perhaps, most effectual, being with small pots half-filled with dry moss, placed on the stakes that support the plants, and bean-stalks placed about them, to which they retire. The most active vigilance is necessary, as they fly from plant to plant ; but, commence early to examine the plant, and keep them down as much as possible. The surface of the ground should frequently be moved ; it will require to be forked up between the plants about five or six weeks after they have been planted. Cleanliness should be observed in every department, and at every stage of their growth, or success will be any thing but certain.

Watering.—From constant watering, the soil near the plant will become baked and hard. It will, therefore, be best to mulch them with partly-decomposed manure ; this should be done immediately after they have been forked over, as it will keep the roots nearest the surface moist.

Use soft water, if possible. If not naturally so, pump it, in the morning, into tubs or tanks, leaving it to the action of the sun and air ; to be used in the evening. When the plants have become large, it will be necessary to give them considerable quantities at a time, instead of frequent waterings ; but this, of course, will depend upon the state of the weather, soil, &c. On no account neglect giving them a slight sprinkling overhead, through a fine rose or syringe, in dry weather, after the sun has left them ; as the dew following this operation, will keep the plants in a wet state until the following morning, which will prove a preventive of the thrip, and keep the earwigs from eating the points of the young shoots, which they often do before any blooms appear. The color and size of the foliage will also soon show the beneficial effects of this practice.

Selecting Blooms for Exhibition often puzzles the most experienced growers,—the dark selfs being so much more numerous and superior in shape to the light flowers, that, in selecting twenty-four, one or two points often have to be sacrificed—either shape, or contrast in colors. I recommend that as much diversity of color should be introduced as possible, with due regard to shape and perfect centres. Much can be done by arrangement ; yet we often see stands contain a whole row of flowers of great similarity. At all times, place deep circular flowers at the four corners ; and select quality before size. If a bloom is observed to be shaky behind, or inclined to open in the centre, when packing up your box, it may safely be concluded that it will not make one of the number required, by the time it is wanted. Discard it at once, and look for the next best of the same sort.

If the blooms are intended to travel a long distance, provide plenty of young ones in addition.

Never, unnecessarily, handle the blooms. It should be remembered that all this pains-taking has been to produce them in the highest state of

perfection, to be looked at only. The dead appearance, caused by rough usage, can never be removed.

Fancy Dahlias are becoming very popular, and deservedly so. The prejudice is fast wearing away, that these party-colored flowers could never be produced of good shape. Every succeeding season has tended to remove this impression; and many, in the accompanying list of fancy Dahlias, would grace a stand of the ordinary varieties.

I should recommend the same treatment for these as the other varieties. Perhaps they should not be grown quite so strong; and those known to be too long in the petal (the prevailing fault at present), should not be disbudded so early as the others; this will improve the outline of the flower but reduce it in size, a point, however, of much less importance.

Fancy Dahlias, in a few years, will, no doubt, be as extensively cultivated as the ordinary varieties, being more showy in the borders, and, with improved shape, will be more attractive in stands.

Raising Seedlings is, perhaps, attended with more interest and pleasure than any other part of the culture of this beautiful flower. Daily watching the expansion and development of each promising bud is attended with no little excitement.

Much has been said and written respecting which sorts are best to save seed from. I will not attempt to instruct, further than give the system practised by me; which is, to remove all thin, or otherwise inferior blossoms, as they appear; for the fewer petals there are, the greater the quantity of seed, with little or no chance of its producing a good double flower. By this, it will be seen, much ultimate trouble will be saved. In small select collections, there will not be so much to do on this point; but, in large collections, there will be many varieties from which it is not desirable to save seed. This accounts for the number of fine seedlings that have been produced by amateurs, from small collections; when many, who annually raise thousands, do not produce a good one. It is worthy of remark, that those seedlings that take the lead and bloom first, seldom, if ever, produce a flower worth preserving; these are from the finest seeds and thinnest blooms; they vegetate first, and keep ahead all through the season, and can easily be distinguished by their tall habit, without side-branches; whereas the late, small plants, that require nursing to make them bloom before the frost arrives, generally produce the best flowers; as it is well known that very few of our best seedlings are ever shown the first season of their blooming. These are from the smallest seeds, and very double flowers.

Concluding Remarks.—I am an advocate for changing the stock of good old varieties. Growing them year after year, in the same garden, without even partly changing the soil, produces the result which may be anticipated: the flowers degenerate; and a change becomes necessary.

Keeping the roots and propagating from them being so simple, and now so generally understood, it would be a waste of time and space to enlarge on this part here; but I recommend that pot plants should be preserved of those varieties as are known to rise badly from the ground, such as the

'Duchess of Richmond,' 'Mrs. Shelly,' and several others, which often decay during the winter.

In taking a retrospective view of the Dahlia fancy, it is pleasing to remark the gradual improvement of this autumnal favorite, up to the present time. This improvement is annually progressing towards greater perfection; for of late years many of the finest varieties have been introduced, and it is notorious that an established fine seedling at the present time will command a higher price than at any previous period. To mark the progress of the Dahlia, the stand that obtained the £20 prize for the best twenty-four blooms at the Cambridge Dahlia Show, 1840, contained only one variety that was shown in the first stand, of the same number of blooms, at the Metropolitan Exhibition, 1846—a brief period of six years. That variety was Springfield Rival, a flower of thirteen or fourteen years' standing. I need not mention that both stands were grown by myself. The former was considered to be the best that had been produced up to that time, and the latter was certainly the best twenty-four I had shown during 1846. I very well remember that, at Cambridge, Unique was what is termed the "bloom of the exhibition;" Penelope, Amato, Hope, Conservative, Maid of Bath, and many other flowers now out of date, were stars in that superior stand."—(*C. Turner's Catalogue*, 1847.)

ART. II. *Domestic Notices.*

The American Agricultural Association of New York city, recently organized, has issued a circular, giving a programme of the *first* contemplated exhibition to be holden in the large room of the Association, No. 501 Broadway, on the 19th of the present month, when a liberal number of premiums will be awarded. We make the following extract from the Circular, in regard to the objects of the Association:—

"Influenced by such considerations, and conscious that no part of the world offers greater advantages for the development of horticultural productions, where the wealth of the community, the facility of access, and the nature of the climate all combine, if seconded by the zeal of those desirous of advancing a favorite pursuit, to lead the Association to the most sanguine hopes of immediate success. Our sister cities of Boston and Philadelphia have entered upon this field of amicable competition with remarkable advantage, and while, in most respects, their opportunities are inferior, let it not be said that we cannot even equal them, when we have once appreciated the benefits of the scheme. Around New York city, the establishments of nurserymen and gardeners are more extensive and complete than in any other part of the country, and their proprietors yield to none in the energy with which they manage their business, the enterprise with which they obtain the best productions of foreign soils, or the skill with which they develop them. If we remember the great number of conservatories, greenhouses

and plant-rooms, which are attached to private dwellings, we cannot fail to be convinced that united action only is wanting to bring into prominent view the existing floral wealth amongst us. And the vicinity of the city, with its sisters of Brooklyn and Williamsburgh, and, hardly more removed, Jersey City and Newark, with the rivers running to the North and East studded with the seats of those devoted to rural pursuits, emulating, in their zeal, the inhabitants of Staten and Long Islands, presents a field of horticultural prosperity certainly unequalled in any part of the United States. Conscious, therefore, of sufficient strength, determined to go on, confident of the support of a people always ready to aid a public enterprise, and trusting that the plan may meet with approbation, the Association submits, through the Executive Committee, the following scheme of its contemplated operations.”

We are glad to learn that another attempt has been made to organize a society in New York, for, as the Committee state, there is no want of energy or enterprise, either among the professional cultivators or amateurs around the city, and united action is only necessary to carry out all they propose. With such gentlemen as Messrs. Bradish, Frelinghuysen, Lenox, Bell and others, as the Executive Committee, and such active members as Messrs. Thorburn, Reid, Hogg, Dunlap, Smith, &c., we cannot doubt of success. We shall endeavor to give a brief report of the exhibition.

Individuals sending plants from a distance are notified that Mr. James Hogg, 562 Broadway, will take charge of them.—*Ed.*

Liberal Donation to the Massachusetts Horticultural Society.—We are happy to announce another liberal donation to this institution of \$500 by Josiah Bradlee, Esq., the amount to be added to the permanent fund for premiums on flowers and fruits. Mr. Bradlee has already presented the Society with two beautiful China roses, and we are glad to record this additional act of munificence for the promotion of a science which contributes so much to the public good.—*Ed.*

Osage Orange (Maclura Aurantiaca).—Messrs. J. F. Dair & Co., of Cincinnati, have been successful in introducing for sale, from the native forests of the Far West, a great quantity of the seed of this beautiful tree, which we, years ago (Vol. II. p. 9), recommended as a valuable hedge plant, especially south of New York. Around Boston, it has not been found hardy, only in some very dry and cool northern exposures. As a general hedge plant in the latitude of 42° north, it will, we fear, never answer the expectations of cultivators. But where it stands the winter freely, it makes one of the most beautiful screens or hedges, its glossy and deep-green foliage having all the elegance of the orange tree. Messrs. Hovey & Co. supplied J. P. Cushing, Esq., of Watertown, with plants for a hedge in 1839 or '40, but, notwithstanding every care has been taken with it, it is yet small, and gaps have been made in it from the destructive effects of severe frosts. To our friends around New York and Philadelphia, we would highly recommend the osage orange.—*Ed.*

Exhibition of the Massachusetts Horticultural Society.—The first public

exhibition of the season will take place on Saturday, May 15th, when premiums will be awarded for greenhouse plants, pelargoniums, roses, cactuses, &c. &c. The season has been rather backward, and the day has been put forward from the 1st to the 15th on this account; yet we anticipate a good display of plants, especially of pelargoniums.—*Ed.*

Cultivation of the Fig, and new Varieties of the Pear.—By accident, I did not see the number of your Magazine containing my last communication and your request for the fig trees, until a very few nights since, when it was quite late to send the trees, as they are out in small leaf. I will try, however, to send you some of them later in the season, or, if I cannot, I will send you small trees of all the good kinds we have in cultivation that I can get. The fig grows readily from cuttings, put out in August, and frequently bears a few fruit the next spring. Of all the varieties we have, and they are not very few, the Alicante and Celestial are decidedly the best. The coming summer, I hope to be able to send you outlines of the most remarkable. My wife took the outline of one of the first Alicante figs we had last summer, which I send you herein. It is much longer than usual, but proportionably narrower in consequence, and probably not of the largest. This is the most productive variety I have ever seen, bearing constantly, from about the middle of July until about the middle of November, when we usually have our first killing frost. This one was plucked ripe on the 4th June, in the open garden, being one of what is usually called first crop; usually, we get only the second and third crops. The true shape of this fig is more nearly such as my dotted outline, but may be not *quite* so large, but *little* if *any* smaller.

Since my first communication to you I have considerably increased my number of varieties of the pear, now numbering 126 varieties, many of which may fruit this summer for the first time. I received, a few days ago from Paris, the following varieties, Orpheline d'Enghien, Tavernier de Boulogne, Colmar d'Aremberg, Belle—, Epine Dumas, Bezi des Veterans, Bonne d'Ezée (quere Bonne des Zees? of you), Beurré gris d'hiver, Nouveau or *de Luçon*, and St. Nicholas. Do you know these varieties and what is their character and reputation, as also of the Bon Chrétien Napoleon, Bonne Ente, (or Anthe) ou Sublime Gamotte, Delices Charles Van Mons, Beurré des Charneuses, do. de Richelieu, do. de Beaulieu, do. Moiré, Excellentissima, Louis Philippe, Bezi de Caissoy or Quessoy, do. Sans pareil, Poire de Passy, Angora ou *Belle Angevine*, Bon Chrétien d'Auche, do. de Vernois and Noisette, which I received last year? Some of this last list will blossom and probably bear fruit the coming summer, though the trees (dwarfs) are very small, even for that shape. I have twice received from Europe the Beurré gris and Beurré doré as different pears, and think that they are, as both times I have lost them; the first time, one tree lived a few years and died of the fire-blight, when I was travelling for the summer, and the last year it came dead, while the true Beurré gris is a very vigorous and flourishing tree. They are considered as different in every work on gardening that I have in French. I received, both last year and this, the Bartlett from Paris, as the Bon Chrétien Williams, and not as

Poire Guillaume, as Mr. Downing says in his first edition of *Fruits*, &c. I have never before now had the St. Ghislain; at any rate, no tree sent me by that name; therefore, the pear of mine that you allude to cannot well be that pear. Be it what it may, it certainly was the most delicious pear that I have ever eaten, but this is *not saying a great deal*, as I have not tasted many of the finest. In looking over the catalogue of the nurseryman who sent me the tree, I see Bezi de Lamotte along with the Chaumontel, de Vaat and others, and no Doyenné de la Motte.—*Yours, R. Chisholm, March 25, 1847.*

Growth of Trees in the Southern States.—From your remark upon the growth of the trees of your correspondent, Dr. Philips, I see that you have no idea of our climate, where peach trees are in *full bloom* now, and blossoms were seen since 14th February. Pear trees, Crassane, and Messire Jean, are in bloom, and some are putting out leaves, which *may* live until next Christmas. I put in two buds of the Beurré des Charneuses last year *about this date* into *one* sucker, at the root of the supposed St. Ghislain, which are, at this time, 4 feet 8, and 6 feet 4 high above their insertions. The Fire-blight is very rare with me, and I hope will hereafter be still more so, but I believe is much more common on sandy soils here, where the pear is grafted upon pear roots. I have set out one plant of what was given me by a gentleman who imported, direct from you, I believe, one dozen plants when they sold at \$5 per dozen, as your Seedling, a pistillate plant, about two miles from here in a straight line, and equally far from any other plants, except one plant of what was given me as Keene's seedling, also pistillate, about half a mile farther off still, to try whether they will bear fruit. Both are in excellent soils for them. I have found the Crassane and Bon Chretien d'hiver pears, very sweet cooked when gathered half-grown, in thinning out the fruit; and Bailly, in his *Manuel du Jardinier*, mentions also the Salviati, Chaumontel, Colmar, Messire Jean and Echasserie as good either for the table or to cook. My only little musk apricot tree being about to die last spring, I grafted below ground, three scions upon roots of peach, and two out of the three lived, and grew well, say about three feet high, the roots being quite small. I have just received from Paris the Beurré Aurore or Capiaumont; Are they synonymous? I find quinces grow *very freely* from cuttings put down at any time during the winter.—*Yours respectfully, Robert Chisholm, Beaufort, S. C., March 25, 1847.*

ART. III. Massachusetts Horticultural Society.

Saturday, April 3d, 1847.—The quarterly stated meeting of the Society was held to day—the President in the chair.

The President announced to the Society, that he had received, from Josiah Bradlee, Esq., a check for \$500, for the purpose of being added to the permanent fund for premiums on flowers and fruits.

The thanks of the Society were voted to Mr. Bradlee for his very liberal donation.

The thanks of the Society were voted to Geo. B. Emerson, Esq., for a copy of his Report on the *Trees and Shrubs of Massachusetts*.

A package of seeds from the Rocky Mountains was received from J. B. Russell, of Cincinnati, and the thanks of the Society were voted for the same. The seeds were placed in the hands of the Committee on Flowers for distribution.

The thanks of the Society were voted to R. Buist, of Philadelphia, for a copy of his *Manual on the Culture of the Rose*.

A letter was read from Wm. R. Smith, of Macedon, N. Y., accompanied with scions of the Early Joe, and Red Canada Apples, and Swan's Orange, and Osband's Summer pears. The thanks of the Society were voted to Mr. Smith, and the scions distributed to a few members.

The XXth Section of the By-Laws was amended by striking out all after the word "them" in the twenty-second line.

Adjourned one week, to April 10th.

Exhibited.—FLOWERS: From John Thomas, gardener to J. L. Gardener, flowers of five varieties of Pelargoniums. From W. B. Richards, two varieties of Crown Imperials and Polyanthus narcissus.

April 10th.—An adjourned meeting of the Society was held to-day,—the President in the chair.

A letter was received from Mr. A. H. Ernst, accompanied with fourteen varieties of apples, and one variety of the pear, which were laid on the table for distribution—and the thanks of the Society voted for the same.

Adjourned one week to April 17th.

April 17th.—An adjourned meeting of the Society was held to day,—the President in the chair.

A box of seed was received from Mrs. Percival, and the thanks of the Society voted.

Voted,—That the Recording Secretary be requested to give notice through the public press, of the opening of the Society's Hall for Public Exhibition.

William D. Ticknor was elected a Subscription Member.

Adjourned for one week to April 24.

April 24th.—An adjourned meeting of the Society was held to-day—the President in the chair.

No business was transacted at this meeting, and the Society adjourned for one week to May 1.

Adjourned two weeks, to May 8.

Exhibited.—FLOWERS: From P. Barnes, a plant of Hybrid perpetual Duchess of Sutherland Rose, and seedling Verbenas, some of them fine.

FRUIT: From J. F. Allen, Black Hamburg and White Chasselas grapes—and Black St. Michael figs. From B. V. French, Yellow Newtown Pippin apples. From S. W. Cole, specimens of apples called the Red Russet, of fine flavor for the season.

HORTICULTURAL MEMORANDA

FOR MAY.

FRUIT DEPARTMENT.

Grape Vines will now be in full flower in the greenhouse and grapery, and the temperature should be raised a few degrees, and the house kept rather closer, especially during cold and windy weather. Discontinue syringing while they are in blossom. By the middle of the month, the berries will probably be nearly all set, when more air should be given, and syringing again commenced: the walks should, however, be well watered every warm day, in order to create a humid atmosphere. Continue to stop the laterals where they have pushed from a previous stopping, and tie in leading shoots carefully where the vines have not yet attained their full length. The border should be carefully forked over, with the addition of some good manure, and a slight coating of guano. Vines in the open air, of both foreign and native kinds, should now be tied up to the trellises, and put in order for the season. Vines in pots, now swelling their fruit, should be liberally watered with liquid manure.

Raspberry plantations may yet be made with the best success, in consequence of the late backward weather. Dig around old plants, and tie up the stems to stakes.

Strawberry beds may be made all the month. Old beds should be carefully raked, and cleared from all old dead runners, weeds, &c.

Grafting should all be completed this month, if possible.

Pruning should now receive attention; it is a kind of work which should be done with deliberation and judgment.

FLOWER DEPARTMENT.

Pelargoniums will be in their greatest perfection this month, and, if they have been properly managed, quite the showiest plants of a good greenhouse collection. If the plants show signs of weakness, give them a little guano water: see that they are all carefully and neatly tied up, and place them in a situation where they can have an *abundance* of *light* and *air*, and be shaded from the sun from 10 till 2 o'clock. Fumigate, if there is a sign of the green fly.

Camellias will now be making their new growth, and should be liberally watered at the root, and freely syringed over the foliage; no plant delights more in moisture during the growing season than the camellia.

Azaleas will now need attention, if fine specimen plants are wanted next season. As soon as they begin to make new shoots, the tops should be nipped off, in order to make them bushy and compact. If plenty of room, now is a capital time to encourage them in their growth by a liberal shift into larger pots. Syringe freely over the foliage.

Gloxinias should now be potted again, if they have been properly managed.

Achimenes will now need another shift, and, if very fine specimens are wanted, they should be put into shallow pans, three plants in each.

Hardy Roses should now be pruned, being careful to cut well in, with the exception of Hybrid Chinas and Bengals. *Prairie roses* should also have a portion of the old wood cut out, in order to give place for the new.

Hydrangeas, if wanted for fine specimens, should now be shifted.

Chinese Primrose seeds should be sown this month to make fine plants for the autumn.

Heaths, *Epacris*es, and similar plants, should now be propagated from cuttings.

Scarlet Geraniums should now be propagated for a stock for next winter.

Verbenas and *Petunias* of fine sorts may now be propagated by cuttings for turning out into the border.

Gladioluses, *Tigerflowers*, and other spring bulbs, may be set out in the open border now.

Fuchsias will need another shift now, if fine specimens are wanted. No plant is more ornamental than this, and, if properly treated, they form the very finest ornaments for the balcony or verandah, during the months of July, August, and September.

Pansies, managed as we have directed, should now be planted out in beds properly prepared.

Dahlias may be put out the latter part of the month, or as soon as all danger of frost is over. [See the remarks in a previous page of the present number.]

Carnations and *picotees*, wintered in frames, should now be turned out into beds, where they will bloom better than in pots.

Annual Seeds of all kinds may be sown now in beds, and, after being properly thinned, they may be put out to fill vacant places in the border.

Daphnes should now be propagated from cuttings of the young wood just hardened.

Chrysanthemums should now be propagated, either by cuttings or suckers.

Cyclamens done blooming may be removed to a cold frame.

Phloxes should now be taken up, divided and reset, in order to have fine blooming specimens.

Cactuses, now coming into bloom, should be liberally watered.

Salvias of the several kinds may be planted out the last of the month.

Herbaceous plants of many kinds may be safely transplanted until the middle of the month, or even later.

Roses in Pots, wanted for early flowering specimens in the autumn, may now be encouraged to make new wood by a shift into a larger size.

Cape Jasmines may now be easily increased by cuttings placed in a little bottom heat.

Greenhouse Plants of all kinds may be now propagated before the very hot weather sets in. Every zealous amateur, or enterprising gardener, will find an abundance of labor to occupy him this month, which is, in truth, the busiest of the year. The out-door garden, too, will need every attention, and to have a succession of showy flowers throughout the season should be the main object of every gardener who knows his duty.

THE MAGAZINE OF HORTICULTURE.

JUNE, 1847.

ORIGINAL COMMUNICATIONS.

ART. I. *Guano, and its Application to Fruit Trees.*
By the EDITOR.

THE use of Guano for Horticultural purposes is steadily gaining friends, and, although much has already appeared in our pages upon the subject, and numerous pamphlets published, there is still, with many, a great prejudice against its use in any form in gardens. Some allege that it possesses no virtue; others, that it is altogether too powerful; while by far the greater part of cultivators have not made any experiments with it, but quietly await the results, after others have failed or succeeded in their endeavors to introduce so economical and valuable a fertilizer.

Since the first introduction of Guano, we have annually made use of considerable quantities, and tried it upon a variety of trees, shrubs, plants, flowers, vegetables, &c., and in no case but with the most marked success, unless we except some few pot plants, when it was used, through negligence, too strong. We have an account of an experiment we tried in laying down an old pasture to grass, the results of which were so much beyond our expectations that we intend soon to publish it. For the present, we have only room to offer a few hints on its application to Fruit Trees, this being just the season for that purpose.

Mr. Teschemacher, whose articles on the use of guano have occasionally appeared in our pages, formerly recommended its application in a liquid state, but more recently, in his treatise on the subject, he has advised its direct application to the soil, as the insoluble portion contains the chief substance of

which the seed is composed. Separate from the extra labor which its application in a liquid state would require, we are decidedly of opinion that the trees are much more benefited by its incorporation with the soil, where the roots may find food as they require it.

The object with all judicious cultivators is to keep the roots of trees as near the surface of the ground as possible, where they will more readily receive the benefit of light rains, the genial warmth of the surface soil, and the action of the air upon the roots, a subject too often lost sight of, especially in heavy soils. It is for this reason that, in such soils, we do not recommend the use of guano alone, but only in connection with some well decomposed manure, which, acting mechanically, by loosening the soil, and rendering it more permeable to air, the roots can more readily extend in search of nourishment.

Reasoning thus, we have applied Guano to our specimen fruit trees, particularly pears, which are planted on the borders of the walks, six to eight feet apart, at the rate of a pound to each tree, (four to six years old,) strewed equally over the width of the border, and immediately dug in, a thin coat of manure having been first given. This is done early in June, when the borders are usually dug.

The results of this single application have been surprising. The trees have grown with rapidity, making short-jointed and stocky shoots, and, with a judicious summer-pruning, ripening perfectly well. A portion of the trees are on the quince stock, and the others on pear; but we make no difference in the application of guano to each.

Our advice, therefore, is, to all who have fine trees which they are desirous of forwarding in a vigorous and healthy manner, to apply guano as we have recommended. On trees planted the present year, a half pound to each tree will be ample, spreading it within a circle of three feet from the tree: to those two years planted, a pound each may be applied; and to those older, the quantity may be increased slightly; always strewing it on evenly, and digging it in to the depth of a few inches with the spade.

At a future time, we shall continue an account of our experiments with guano on forest trees, shrubs, grape vines, roses, &c.

ART. II. *Descriptions and Engravings of Select Varieties of Pears.* By the EDITOR.

IN the series of articles which we have, from time to time, presented to our readers, describing all the choicest varieties of pears which have fruited in American collections, we have generally placed those of native origin together. This arrangement we have thought preferable as long as practicable, in order to bring them more immediately before amateur cultivators, with a view to show their comparative merits, and to give a better estimate of their number, than if they were indiscriminately intermixed with foreign kinds. Until the number of choice native pears is so reduced, as to delay our descriptions, this arrangement will be continued.

67. SWAN'S ORANGE. *Gen. Farmer*, Vol VII. p. 25.

Onondaga,
Onondaga Seedling, } of some collections.

In the winter of 1845, in looking over the *Genesee Farmer*, the Horticultural department of which is under the supervision of our correspondent, Mr. P. Barry, of the Mount Hope Nurseries, Rochester, N. Y., we were somewhat interested in an account of a new pear described and figured under this name. A very high encomium was bestowed upon it; but we supposed its merits were overrated, or it would not have been so long confined to the locality of Rochester without being better known. Believing it to be either some foreign variety, under another name, as Mr. Barry expressed his doubts about its native origin, or only a new fruit of fair quality, we made no exertions to procure a tree for our collection, and the name, for the time, was partially forgotten.

In the summer of 1846, our correspondent, J. W. Bissell, of Rochester, kindly offered to send us specimens of the various new or little known fruits of western New York; and, on the 10th of October, we received a box containing a variety of apples and pears, accompanied with the following note:—"Swan's Orange Pear, sometimes called the Onondaga. The first scions were brought here, some years since, by L. B. Swan, from a tree upon the farm of his father in Onondaga

County. The parent tree is dead, and it cannot now be ascertained where it originated, and no one knows it except from this source. It is a rapid grower, and an early and abundant bearer. We consider it one of our *very best* pears, and hope it will please you." On opening the box, we found six unusually large pears, and we more than ever had the impression that it must have been overrated, as a pear so very large and handsome could not, by any possibility, have been for some years cultivated without its qualities—if so very superior—being widely and extensively known. As they appeared rather hard, and not in a state for eating, we placed them away to ripen.

A fortnight after this, we ate one of the pears, and, to our great surprise, we found it to possess qualities of the very highest excellence—qualities which we had scarcely found in any pear we had ever tasted. We had just eaten of all the fine kinds of the season, such as the Belle Lucrative, Flemish Beauty, Louise Bonne de Jersey, Marie Louise, &c., and when we state that neither of them came up to the Swan's Orange, we only state what, in our humble opinion, we believe to be true. At this time, we had not examined the specimens in the bottom of the box, which were wrapped up in paper, and our surprise was still increased when we found one of the pears to weigh upwards of *thirteen ounces*. Four weeks elapsed before we ate the last specimen, and, up to that period, they remained perfectly sound, without the least appearance of rot at the core. Indeed, we do not hesitate to affirm that, if the epithet of the "best pear in the world" belongs to any variety, it is to the Swan's Orange.

Desirous to give a full account of so remarkable a pear, whose history appeared to be involved in some obscurity, we applied to our friend Mr. Bissell to supply it, and, at the same time, wrote to other correspondents, that we might have all the particulars; and we are happy to state that these have been kindly furnished by E. W. Leavenworth, Esq., of Syracuse, to whom we are indebted for the following account, under the date of Dec. 26th last, so interesting that we make no apology for its length:—

"The entire history of the 'Onondaga Seedling' is embraced in the following facts, so far as the same has yet

been traced. Some six or eight years since, and, perhaps, ten, Deacon Joseph Swan, of Onondaga Hollow—four miles south of this—had a son living in Rochester. In the fall of the year, he took from home, and exhibited in Rochester, some specimens of this pear. It received universal admiration. Ellwanger & Barry procured scions from Mr. Swan—grafted into an old tree or trees—and have the fruit now growing. They also propagated the tree in their nursery, and called it ‘Swan’s Orange,’ and ‘The Onondaga Seedling.’ They have spread the knowledge of the tree extensively. I have, this season, undertaken to trace its history. I traced the only trees I have yet found, being Mr. Swan’s single tree, and five owned by one Killman, to the garden of Henry Case, at Liverpool, five miles north of here, on the Onondaga Lake. Case left this country many years since; but I found him by letter at Granville, in Ohio. I have a letter from him, received a few weeks since, in which he says that he cut the graft from which his original tree grew, on the ground of the father of the late Fisher Curtiss, Esq., of this town, in Farmington, Conn., in the winter of 1806; that, in the spring of 1806, he put the graft into a small tree, about three miles west of Onondaga Hill; and, in 1808, moved the tree to Liverpool, where it died in 1823. But, in the mean time, it had become a large tree, and borne fruit, and many grafts had been taken from it; he particularly remembers Mr. Killman’s. He does not state the cause of the death of his tree in 1823. Mr. Swan informed me that his tree came from Case’s. Swan’s tree is old and not thrifty—grows in the grass—I presume was never manured or dug about—and the place is a steep side hill, and every way unfavorable. There are no young shoots on the tree, or were none last year. Mr. Killman has one small tree, and four in bearing about fifteen years old. They are also in grass, but are thrifty, hardy, excellent growers and bearers—bear every year, and abundantly. These are the only trees *known* here.

“I have not yet attempted to trace the history of the tree at Farmington, Conn., but if no other person does, I will.”

Since the receipt of the above, we have had several letters from Mr. Leavenworth, but he has been unable to learn any thing respecting its history in Connecticut, and, though

we have delayed our description to complete this, we have also been unable to glean any further account of its origin.

Nothing is more important in pomology than uniformity of nomenclature. A fruit once named, no alteration should be made, even upon what might sometimes seem reasonable grounds. If every individual can re-name a fruit as soon as he introduces it into his garden, pomologists might give up at once all attempts to reduce the chaotic confusion, which already exists, into something like order. The rules which govern pomological science are precisely the same as those which have always governed botanical science, and are probably familiar to most cultivators. A fruit which has been named by a special vote of a Horticultural Society, and described and figured under that name, cannot be changed without violating all these rules; and no author or pomologist who had the promotion of the science at heart, and not the exhibition of his own dogmatic opinion, would attempt such an alteration. Such is the case in regard to Swan's Orange. The Horticultural Society of Rochester, some years since, called it after Mr. Swan, because he first exhibited specimens of the fruit, and he was, in fact, the individual who brought it to notice. From 1806 to 1823, a period of seventeen years, while it grew in the garden of Mr. Case, we cannot learn that it had a name, or that any attempt was made to disseminate it, or, from 1823 to 1840, a period of seventeen years more, do we hear any thing of it: but, no sooner did the younger Mr. Swan perceive its excellence, than he exhibited the fruit, introduced it to notice, and gave away the scions to nurserymen that the trees might be disseminated. Will any individual say that "Mr. Case's name, if that of any person, should be attached to it"? Certainly not. And again, allowing, for a moment, that Mr. Swan's name should not be coupled with it, why should it be called Onondaga, a name, we admit, which we should like, if it were for the first time applied. Did it originate in Onondaga county? Certainly not. It is a *New England pear*, and grew in that "*sandy soil and rude climate near Hartford*" where "*many sorts of pears that once flourished well are now feeble, and the fruit often blighted.*" The name of Onondaga cannot apply, and, without alluding to Mr. Barry's description and figure of this variety, the priority of

introduction to notice is sufficient to establish the name of Swan's Orange. How stands the case with the Bartlett pear, which, though an old and well known English variety, is now called by that name, even in some pomological works, be-

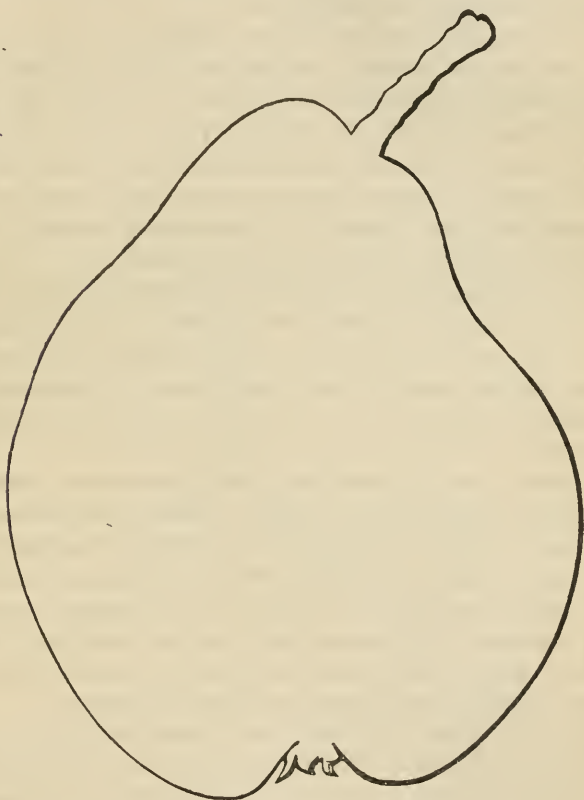


Fig. 19. Swan's Orange.

cause it was first imported into Mr. Bartlett's garden. Here we have a foreign pear described and figured in European works, and yet it is called after the person who first brought it to notice in this country. Go further back, and see how foreign pomologists respect priority of name. The Bartlett, so called, was raised in Berkshire, in England, by a Mr. Wheeler, and was first introduced to notice by Mr. Wil-

liams, a nurseryman at Chiswick, near London, whose grounds are now in the possession of Mr. Glendenning, and where we saw the old tree in 1844. Yet no cultivator attempted to call it after the individual who raised it. Mr. Williams brought it into notice, and, from this circumstance, it received the name of Williams's Bon Chrétien.

It only remains for us to add our description to these rather long preliminary remarks, which have been extended from the exceeding high merit of the variety, a variety which, we repeat, must be called the "king of pears." It is no small credit to our rapid strides in pomology, thus early to be enabled to possess a native variety which fully equals, if not surpasses, any thing which the accumulated labors of European pomologists for centuries have produced.

Swan's Orange (*fig. 19*), in general appearance, somewhat resembles a large specimen of Williams's Bon Chrétien, having the same uneven surface, but, towards the crown, it is much broader, and the stem end is nearly always swollen and raised on one side, so as to throw the stem into an oblique direction.

The tree, as our correspondent, Mr. Leavenworth, remarks, is a thrifty, hardy, and excellent grower, and bears fine crops, even under the ordinary treatment of orchard culture, in grass land. Messrs. Ellwanger & Barry inform us it is a most rapid grower. Whether it will succeed upon the quince remains to be ascertained, but we shall try it next autumn. The wood is strong and upright, rather short-jointed, with prominent buds, and of a clear olive shade.

Size, large, about four and a half inches long, and three and a half in diameter: *Form*, oblong obovate, little uneven, and irregular or Bon Chrétien shaped, largest in the middle, narrowing towards the crown, and tapering to the stem, near which, on one side, it is suddenly contracted: *Skin*, very fair, smooth, greenish yellow, but becoming a bright yellow when mature, leaving a few traces of green, russeted around the eye, faintly tinged with blush on the sunny side, and very regularly covered with small, round, russet specks: *Stem*, rather short, about half an inch in length, moderately stout, crooked, greyish brown, with white specks, slightly fleshy at the base, curved and obliquely inserted in a very shallow

contracted cavity, with a swollen lip or projection on one side: *Eye*, medium size, closed, and rather deeply sunk in a large, round, smooth basin; segments of the calyx broad, fleshy, and partially reflexed: *Flesh*, white, fine, very melting, buttery and juicy: *Flavor*, rich, sprightly, vinous, and delicious, with most agreeable and high perfume: *Core*, small, very close: *Seeds*, remarkably small, and very dark. Ripens in October, and will keep from four to six weeks.

We have only to remark that a figure of it will appear in an early number of the *Fruits of America*, from a beautiful painting by our artist, Mr. Sharp.

68. DALLAS. *Mag. of Hort.* Vol. XI. p. 251.

In our volume for 1845, (XI. p. 251), a brief account of several of Ex-Gov. Edwards's seedling pears appeared from

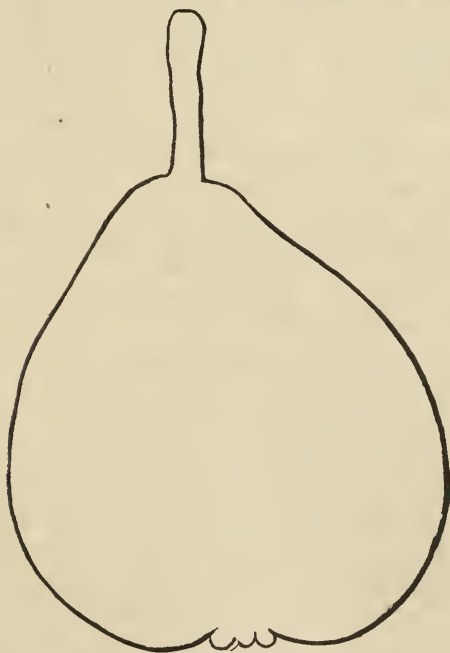


Fig. 20. Dallas.

his own pen, and, in our last volume, (XII. p. 441), we figured and described what we thought to be one of the best of

his numerous seedlings, viz., the Elizabeth. At that time, we had only made a single trial of them, in the fall of 1845, but the last season, having the opportunity to taste some of them again, we found two which appear well deserving of a place in collections, especially those of any extent. These are the Dallas and Calhoun—the latter of which, as Mr. Edwards has stated in his communication above referred to, he considers “one of his best, as might be known from the name.”

The Dallas (*fig. 20*), is a fair-sized pear, of a russety appearance, and comes in at a good season, during November and December, after the great number of early autumn kinds are past and gone.

Size, medium, about two and a half inches long, and two and a half in diameter: *Form*, obovate, regular, full at the crown, and tapering to the stem: *Skin*, dull yellow, thickly interlaced, and, in some places, quite covered, with cinnamon russet: *Stem*, medium length, about three quarters of an inch long, moderately stout, straight, pale brown, and inserted without any cavity: *Eye*, large, open, and moderately sunk in a small, round, slightly wrinkled, basin; segments of the calyx medium length, round, stiff: *Flesh*, yellowish white, fine, melting, and juicy: *Flavor*, rich, vinous, and slightly perfumed: *Core*, medium size: *Seeds*, small, pale brown. Ripe in November, and keeps into December.

69. CALHOUN. *Mag. of Hort.* Vol. XI. p. 251.

The success which has thus far attended the experiments of pomologists, in raising new varieties from seed, should encourage all, who have the time and patience, to persevere in the laudable effort of adding new kinds to our collections. Most of the native sorts have a vigor and hardiness which enable them to withstand our variable climate, suffering less from severe frosts, and freer from the attacks of the blight, in localities where that disastrous malady annually destroys many trees. No individual who plants an orchard of apples would think of selecting foreign sorts. The Baldwin, Greening, Russet, Newtown pippin, Bellflower, &c., would be chosen; and, if our apples are so much superior, why should not our pears partake of the same character? If we may judge from the Seckel, Dix, Tyson, Swan's Orange, Andrews,

Lewis, Reid's Seedling, Lawrence, &c., this will undoubtedly be the case. Gov. Edwards deserves the thanks of all cultivators for what he has done in the production of new kinds,

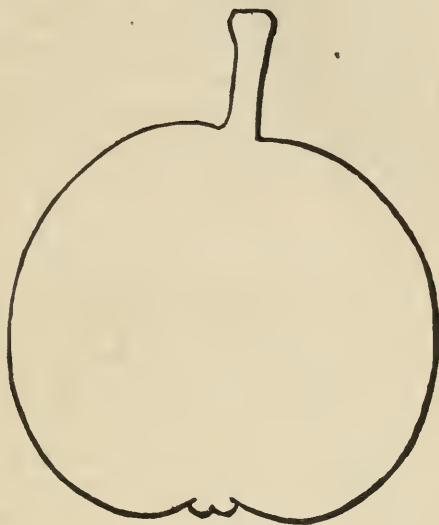


Fig. 21. Calhoun.

and to add three good varieties is an achievement which but few will be able to accomplish in the same period of time. Our description of the Calhoun, (*fig. 21*), is as follows:—

Size, medium, about two inches long, and two inches in diameter: *Form*, roundish, regular, slightly tapering towards the stem: *Skin*, fair, smooth, yellow, covered with russet specks, and traced with russet on the sunny side: *Stem*, short, about half an inch, stout, and inserted in a very slight cavity: *Eye*, small, closed, and slightly depressed in a very shallow basin; segments of the calyx medium length: *Flesh*, yellowish white, soft, melting, and juicy: *Flavor*, rich, perfumed, and excellent: *Core*, medium size: *Seeds*, large, brown. Ripe in October and November.

70. McLAUGHLIN. *Mag. of Hort.* Vol. VIII. p. 62.

In the fall of 1831, Gen. Wingate, of Portland, sent to the Massachusetts Horticultural Society a basket of pears, which

he stated to be a seedling raised in Scarborough, Me., and the Committee pronounced it a "very fine fruit." Mr. Manning, ever eager to add every new and desirable variety to his collection, procured scions of the pear, with which he grafted trees that produced fruit in 1841 or '42: at that time, he gave a short description of it as above referred to, with the remark that it was "juicy and good."

In the fall of 1846, our correspondent, Mr. Goodale, of Saco, sent us several specimens of the McLaughlin pear, (*fig. 22*),

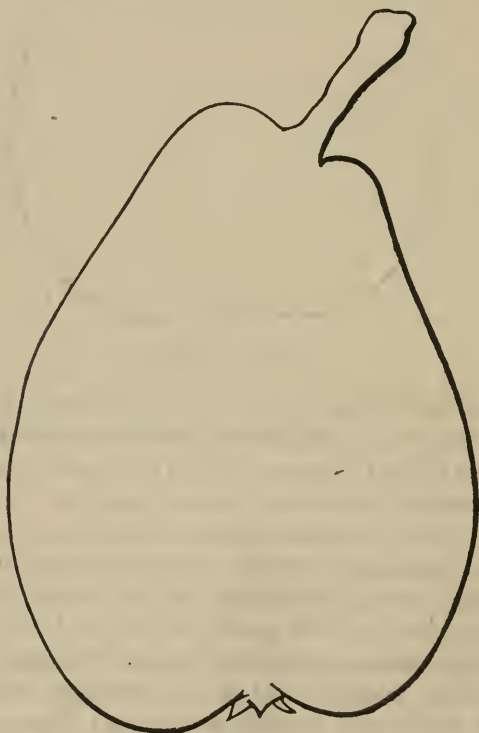


Fig. 22. McLaughlin.

with the following note: "I send you a sample of the McLaughlin pear, thinking it probable you might like to describe it in your Magazine some time. With us, it is vastly superior to many usually considered first-rate,—though I do not consider this as strictly first-rate—but it is the best winter pear

we have fruited here, usually in eating in December, and November to February. I think it not improbable that it may be a cross of the old St. Germain and Brown Beurré."

The pears sent us by Mr. Goodale were of large size, and proved to be a very excellent fruit,—not quite first-rate, but well deserving a place in a select collection. Our drawing was made on the 15th of December, and some of the pears kept till January, though in a rather warm room. We subsequently wrote to Mr. Goodale for some account of the origin of this variety, and his statement is as follows:—

As you requested, I give you all the particulars known to me in regard to the McLaughlin pear. There are some dozen trees on the McLaughlin farm, about ten miles from here; all are evidently grafted, some of the older near the ground, the others in the branches. The widow of the man who planted them says the scions came from Westbrook, an adjoining town, but no such pear is known there, that I can ascertain. It is believed to be a seedling raised in this vicinity. The fruit, though not strictly first-rate, is usually very good, and, in favorable seasons, when the trees are not overloaded, little inferior to any pear of the season; last of November to January, and they have kept sometimes nearly through February. The trees grow in grass land, and have received no culture whatever for many years, and bear well.

Gen. Wingate, in his letter dated October, 1831, states, that a person in Oxford County, (whose name, he believes, was Lamb,) many years since, raised a number of pear trees from seeds, all of which produced, as he understood, inferior fruit, with the exception of one tree; and, from that tree, the scions were taken and engrafted by Mr. McLaughlin, of Scarborough. There is no doubt of its native origin.

Size, large, about three and a half inches long, and two and a half in diameter: *Form*, oblong, tapering slightly towards the crown, and contracted near the stem, where it ends obtusely: *Skin*, fair, slightly rough, of a bright cinnamon russet, tinged with brownish red on the sunny side, showing a few traces of a bright yellow ground on the shaded side: *Stem*, short, about half an inch in length, rather stout, swollen at its junction with the tree, little curved, and obliquely inserted in a shallow cavity on one side of a small

projection: *Eye*, medium size, open, and moderately sunk in a rather shallow, uneven, ridged, or puckered basin; segments of the calyx, broad, short, wavy, and pointed: *Flesh*, yellowish, rather coarse, melting, and juicy: *Flavor*, rich, sugary, slightly perfumed, and excellent: *Core*, rather large: *Seeds*, large, plump, pointed, light brown. Ripe in November, and keeps till January.

71. ROPES.

Last autumn, our correspondent, Mr. J. F. Allen, of Salem, presented us with a very handsome pear, much resem-



Fig. 22. Ropes.

bling the Seckel, which he proposed to call the Ropes, (*fig. 23*,) from its having originated in the garden of Mr. Ropes, of that city, about the year 1833 or 1834. It first produced a few pears in 1844, but none were eaten until last summer, (1846,) when it was found to possess very good qualities, which will undoubtedly improve as the tree attains age and finer specimens are produced. It resembles the Seckel so much, that one not well acquainted with the latter would scarcely detect the difference. The following is our description :

Size, medium, about two and a half inches long, and two and a half in diameter: *Form*, obovate, regular, tapering toward each end, and very obtuse at the stem: *Skin*, fair, of a uniform pale cinnamon russet, slightly tinged with red on the sunny side: *Stem*, rather short, about half an inch in length, stout, dull brown, curved, and rather deeply and obliquely inserted in a small cavity, swollen on one side: *Eye*, small, open, and slightly sunk in a smooth, shallow basin; segments of the calyx, round, short, projecting: *Flesh*, yellowish, coarse, melting, and juicy: *Flavor*, sugary and good, with a rich perfume: *Core*, small: *Seeds*, medium size, black. Ripe in October and November.

72. PENNSYLVANIA. *Mag. of Hort.* Vol. X. p. 213.

Our first knowledge of this pear was from Mr. Manning, in

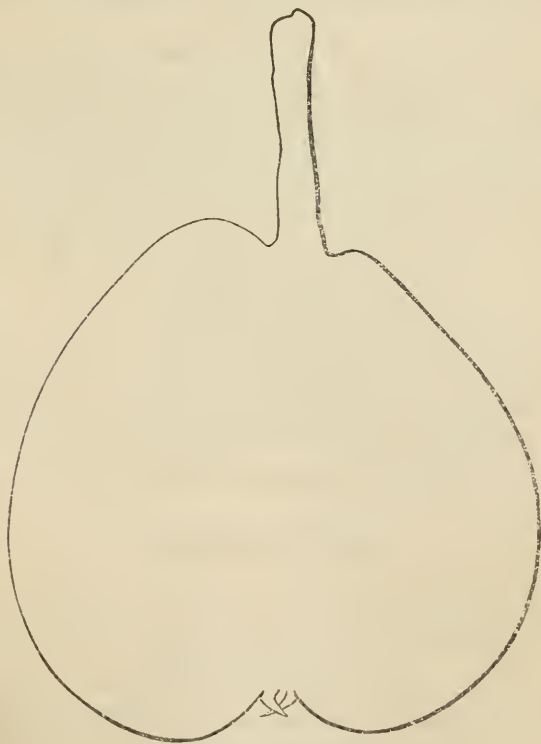


Fig. 23. Pennsylvania.

the fall of 1843, when he gave us some fine specimens pro-

duced in his collection, from which we made a drawing at that time. Wishing to have another trial of it before giving a figure and description, we last year had some very fine specimens from the collection of Mr. Cabot, and we were gratified to find it prove a very excellent pear,—not first-rate,—but a good-sized, handsome variety, worthy a place in a large collection,—its productiveness and hardy character giving it a claim over some of the better, but more delicate foreign sorts.

The Pennsylvania pear is a seedling found on the ground of Mr. J. B. Smith of Philadelphia, the original tree of which is stated to be nearly forty feet high, of a pyramidal form, and remarkably robust habit. Its origin and age are not known. It received its name from the Pennsylvania Horticultural Society. As an American fruit, it may be ranked with the Buffum, Cushing, Fulton,—other not strictly first-rate varieties.

Size, large, about three inches in length, and three inches in diameter: *Form*, obovate, largest in the middle, little swollen on one side, and tapering to the stem, where it ends obtusely: *Skin*, fair, and slightly rough, dull yellow, very much russeted, particularly around the crown, with a ruddy tinge on the sunny side: *Stem*, long, about one and a half inches, stout, straight, wrinkled, brown, slightly fleshy at the base, and inserted with scarcely any cavity, but with a swollen projection on one side: *Eye*, small, closed, and rather deeply sunk in an uneven, ridged, contracted basin; segments of the calyx, short, pointed, stiff: *Flesh*, yellowish white, coarse, melting, and juicy: *Flavor*, rich, sugary, slightly perfumed, and good: *Core*, small: *Seeds*, very small, plump, light brown. Ripe in October, and keeps some time.

ART. III. *Notice of a new Seedling Apple.* By A. FAHNES-
ROCK, Lancaster, Ohio.

A NEW Seedling Apple has been raised by the Rev. C. Springer, Meadow Farm, near Zanesville, Ohio, which, on account of its great productiveness and late keeping, I consid-

er quite an acquisition, or, at least, very desirable. Mr. Springer informs me, under date of May 3d, that its season of maturity is about the 10th of March, and that it is still improving, and rots the least of any apple he has in his orchard, (and he has a fine collection.) He also stated to me that it produced enormously—far beyond any other tree he has. I will endeavor to forward you scions in the fall, with others you requested of me.

In relation to your remarks on the American White Winter Calville, I wrote to the Mr. Mathews, of Coshocton, and he says it is certainly different from the old White Winter Calville.

I hope to be able to bring to your notice some other fruits of merit, from time to time.

Have you Feast's new Seedling Grape? I think it desirable.

Lancaster, Ohio, May 17, 1847.

Our correspondent will find a brief note in a future page from a friend in Montreal, in which he states that Mr. Fahnestock's description of the American White Winter Calville answers perfectly to the old White Calville, a variety well known in Canada.—*Ed.*

ART. IV. *Some Account of the Beautiful New Shrub Spiræa prunifolia, var. flore pleno, with a Drawing of the Same.*

COMMUNICATED BY M. LOUIS VAN HOUTTE, Belgium.

SOME time since, in our article on the *Hydrangea japonica*, (p. 122,) we announced the introduction of a new and elegant shrub, called the *Spiræa prunifolia*, with double flowers, which was another of the great acquisitions of Dr. Siebold, in his Japan Expedition. We now have the gratification, through the kindness of our correspondent, M. Van Houtte, the celebrated nurseryman of Ghent, in Belgium, to furnish a drawing of the same, which has been forwarded for this purpose, together with some account of this charming plant:—

It is difficult to convey an impression of the beauty of this

shrub from the specimen represented in the engraving, (*fig. 25*). Imagine a neat, deep-green, upright bush, covered with thousands of snow-white flowers, of the size represented, and as perfect as roses, and some idea may be formed of this new



Fig. 25. Spiræa prunifolia.

spiræa. Braving with impunity the severity of our hyperborean latitude [Belgium], it must be considered one of the greatest acquisitions for decorating the lawn or parterre.

We do not know the native country of this shrub. M. Siebold, to whom we are indebted for its introduction, we

learn, found it cultivated in the Japan gardens, where it attained the height of six to eight feet. Its native habitat is supposed to be Corea, or the north of China, and it is sometimes found growing in a wild state in the environs of cities, but evidently not indigenous.

According to M. M. Zuccarini and Siebold, (*Fl. Japan*,) it forms an upright and bushy shrub, with slender branches, which are covered with a smooth, ash-colored bark, which, when old, detaches itself in thin scales. The leaves are oval, rounded at their base, a little acute at the apex, downy beneath, and denticulated at the edge. The flowers, which appear in clusters of four to six, the entire length of the shoots, are perfectly snow-white, and perfectly double. In shape, they resemble the double *Ranunculus aconitifolius*, and their number and arrangement, as well as the light green of the foliage, and neat habit, render it the most charming of hardy shrubs.

Its cultivation is the same as that of the *Spiræa trilobata*, and other well known kinds; and it is increased either by division of the root or by layers. *L. V. H.*

Mr. Van Houtte has now the whole stock in his possession, and proposes to sell the plants by subscription the coming fall, as will be seen by reference to his advertisement. We trust it will soon find its way into our gardens.—*Ed.*

ART. V. *On the Propagation of Stove and Greenhouse Exotics: in a Series of Letters.* By JAMES KENNEDY, Gardener to S. T. Jones, Staten Island, New York.

LETTER II. *Propagation by Cuttings.*

As my former remarks on the Propagation of Exotics seem to have met with your approbation, I will continue the article in your next number. I believe my last letter treated of the propagation by seeds, as far as necessary to insure success, and therefore I will devote this article to propagation by cuttings.

2. **CUTTINGS.**—Most exotics may be increased by this mode; many of them by young cuttings a little hardened at the base, some by ripened ones, and a few by means of very young ones. However, when it is desired to propagate any particular kind, a healthy plant should be chosen for the purpose. This is not generally borne in mind. Many cultivators select the shabbiest plant in their collection, without ever considering that it is to become the parent of many, and nine out of every ten will be diseased. Indeed few, if any, will ever make good specimen plants, be they ever so well treated. At any rate, if the cutting be not healthy, reason will teach us that it cannot perform the functions necessary to produce roots.

If the kind to be propagated from is an inmate of the greenhouse, let it be removed to a moist stove about the first of February, where it will produce its young shoots early, and, when the shoots are of a sufficient length, say from $1\frac{1}{2}$ to 3 inches, according to the sort, take it back to its own department to harden off a little, and get ripened more or less, as may be required: this, however, must be regulated according to the sort in question. From the first of February to the end of May is the best time to increase by cuttings, as then the plants have ample time to root and be potted off in season to stand the following winter with success. But the time of taking off cuttings depends chiefly on the nature of the plant to be propagated. Heaths, epacrises, phylicas, diosmas, burtonias, &c. &c., should be taken off when the plants are in a growing state, or when they have nearly completed their growth; and this is generally in spring, or beginning of summer. If not naturally in a growing state at this time, it is easy rendering them so by a slight degree of artificial heat. Some take their cuttings off in the fall; but this practice I do not approve of, as it incurs the expense of artificial heat to protect them during winter; besides, the absence of light, and the presence of damp, will more than likely occasion many deaths; but, when taken off in spring, the bright days are coming, solar influence increasing, and, consequently, very little fuel is consumed; and, what is of the most consequence, the plants are full as well established by winter as those put in in the fall.

In some kinds of plants, it is necessary to take lateral shoots, and these should be slipped off, so as to have with them the axillary formation of the bud and vessels of the leaf. Of these, the gnaphalums, helichrysums, burchellias, loganias, davesias, and some banksias, are instances, some of which will not strike otherwise. The cause of this is, I expect, that the heel consists of wood, more or less ripened, and is not so likely to damp off after planting. However, let this not lead the young propagator to believe that he must have wood of these sorts thoroughly ripened (such is not the case): A medium state is the best and surest. The cuttings of succulent plants, and, in fact, all fleshy plants, should lie exposed in an airy place for some time after being severed from their parent, that their juices may become dried; for, if put in in a fresh state, the ends of the cuttings soon turn black and rot, whereby the expectations of the propagator are frustrated. Of these, the cactus tribe are instances, as well as the milky tribe, such as the succulent euphorbias, all of which are full of milky juices.

The sized pots I have been in the habit of using as propagating pots, are those of five inches diameter, and three and a half deep. Over the hole in the bottom, I put a large piece of broken pot or oyster shell, over which I place some finely broken crocks about the size of peas, and on this I put a little rough soil or moss, then my compost, composed of two thirds peat and one third mellow loam, with a little sand to keep the soil porous, that all superabundant moisture may freely drain off. With these materials, I fill my pots to within an inch or so of the top, and this inch I fill up with fine silver sand; give all a gentle watering with a fine rose watering pot, when they are ready for my cuttings. If the pot is well drained, this preparation will answer for most sorts of cuttings; the sand on top retains just sufficient moisture for the well-being of the cuttings, and no more; and the soil below the sand furnishes nourishment to the roots as soon as they penetrate through the sand. The shallower cuttings are planted, if they are well fastened, the sooner and better will they root, and there is less danger of their rotting or damping off. From half an inch to an inch and a quarter may be considered a medium length to be inserted; for ericas, epa-

crises, and all such fine-leaved, delicate kinds should not be planted any deeper than absolutely necessary; but there are other sorts which will require to be planted deeper.

After the cuttings are planted, and well fastened in the pots of sand, give a slight watering; place the bell-glasses over them; and let each be taken to their respective departments,—the stove kinds to a bark bed with a moist heat, and the greenhouse kinds to the front shelves in the greenhouse,—taking care to shade them when the sun is powerful, and to wipe the bell-glasses dry every morning; if this is not attended to, the moisture accumulating on the sides of the glass will cause the cuttings to turn mouldy, and eventually die off, even after they have struck root. When the sand appears dry on top, give sufficient water in the morning to reach the bottom of the sand. From June to October, the greenhouse kinds may be plunged out of doors in a dry, shaded border, when any that remain without rooting must be taken to their former quarters. While plunged out of doors, they should be defended from heavy rains.

The sooner cuttings are potted off, after they are rooted, the better; let thumb-pots be used for this purpose, and, when potted and watered, let them be kept close for a time, till they get somewhat established, being careful that they are shaded regularly when necessary: if any of them are drawn up weakly, let their tops be pinched off, which will encourage them to push strong and bushy. Those of the stove kinds not struck must remain in the bark bed, and not be removed till rooted. Geraniums, verbenas, &c., may be struck in a warm border any time during the summer; but when a large stock is required, the best time is September. There is an erroneous opinion entertained by many gardeners that a plant can only be preserved for a few years by cuttings, and that it is only by such that a plant can be raised so as to be propagated successively for ages. For my part, if I get a plant to strike root and thrive, I would not have any dread of losing it afterwards.

Staten Island, N. Y., May 20, 1847.

Mr. Kennedy's article will be continued in our next number. It is unnecessary for us to say that his letters show him to be a perfect master of his profession.—*Ed.*

ART. VI. *The Greenhouse and Conservatory in Summer.*

By the EDITOR.

A GREENHOUSE OR conservatory in our northern clime—where, for about eight months of the year, nearly all tender plants require protection from frosts—is a necessary appendage to every garden of any extent—or, we might say, to almost every dwelling;—for it is near to, or immediately adjoining, the house, that the conservatory should always be constructed. Separate from the interest which winter flowering plants alone create, it is necessary to the beauty and brilliancy of every summer garden to have a place where great quantities of showy plants can be brought forward for decorating the border and parterre throughout the summer.

Every one admires the beauty of a well-kept collection of greenhouse plants. Whether we view it in autumn, when studded with that showy flower, the chrysanthemum,—in winter, when gay with the beautiful camellia,—or, in spring, when the many-hued roses breathe their delicious odor, and the exquisite tints of the pelargonium dazzle the eye,—it is always the same delightful place. Secure from the heavy storms and wintry blasts, the floral treasures of all climes are ever before us, interesting us in their growth, and delighting in their variety and aspect.

But of all places the most dreary,—the greenhouse, as usually managed in summer,—is the most so. No sooner does June—"rosy June"—arrive, than the plants are all tumbled out of the house as if they had no right to be there; all their former brilliancy and beauty is forgotten; and, with, perhaps, the exception of the camellias, are huddled into some out-of-the-way place,—or under the shade of some old tree, where they remain all summer,—sometimes wet and sometimes dry,—as if they were so many cumberers of the ground. Mr. Repton, in his *Landscape Gardening*, speaks of the greenhouse as "generally a deserted and unsightly object," and alludes to one which he constructed in such a style that it might be turned into a pavilion, in summer, in order to avoid this dreary aspect! It is true, at the time he wrote, that our gardens were not enriched with the variety of plants

which the researches of botanists have brought to notice, and many of which are so peculiarly adapted for summer ornaments of the greenhouse. The gorgeous Japan lilies, the brilliant achimenes, the superb fuchsias, and the elegant tribe of gloxinias and gesneras, then mostly unknown, will alone enrich and render the greenhouse as attractive in summer as at any other season of the year.

Desirous that our amateur friends should enjoy the treat which has been of so much gratification to us, we have ventured to devote a page or two to a recapitulation of some of the plants, which will enable them to attain the desired object. We do not intend to enter into a full account of the growth and management of the plants, leaving that to another opportunity, but merely to give a full list of such as we have, for two or three years, cultivated in the greenhouse throughout the summer months, or the interval from June to September, when it usually presents only a "beggarly account of empty benches."

JAPAN LILIES.

The Japan lilies are, *par excellence*, the gems of the summer ornaments of the greenhouse. Perfectly hardy though they may prove to be, the entire success which attends their cultivation in pots,—aside from the delicate tints of some, as well as the gorgeousness of others, which would scarcely withstand exposure to the winds and storms,—will always render them the most prominent objects of attraction. No description of them would be adequate to their merits, and, to be fully appreciated, they must be seen in flower. There are several species and varieties; but those which are especially splendid are the following:—*lancifolium album*, *l. punctatum*, *l. roseum*, and *l. rubrum*; *testaceum* and *Brownii*. They commence blooming the latter part of June, and continue in flower till September.

ACHIMENES.

Next to the lilies should, perhaps, be ranked this beautiful family, though some might dispute its claim over the Gloxinias. There are about a dozen species and varieties, though we have only cultivated nine, as follows:—*A. longiflora*,

grandiflòra, ròsea, hirsùta, coccínea, pedunculàta, oblònga, (*Niphæa oblonga*,) pícta, and pàtens, the last one yet very rare : pícta is, perhaps, the most attractive of the whole, as its flowers are not only very splendid, but the leaves are of a very velvety texture, and richly marked with dark-colored bands, presenting a fine contrast with the yellow and scarlet spotted flowers. They commence flowering in April, and continue till October ; of the easiest cultivation in very light soil, composed of leaf mould and heath soil. Three or more plants, placed in a small pan ten or twelve inches wide, make a fine show when in full bloom.

GLOXINIAS.

“One of the principal ornaments of our greenhouses,” says a Belgian writer, in describing a new variety of this tribe, “during the summer season, is the gloxinia in all its delightful species and hybrid varieties, whose brilliant flowers are admired for a long space of time, and among which are blue, violet, white, and rose, with their rich and velvety tints, and shining with a lustre inimitable. What would be our greenhouses without this plant? Grouped together in quantities, and in company with their allies, the achimenes, gesneras, &c., what a variety of form and colors ! What flowers ! What a splendid sight !” To any one who has seen a good collection, well grown, this apparently imaginative statement does not convey the reality. We may indeed exclaim, What colors !—What brilliancy and beauty ! We write after just having seen some magnificent specimens which are already covered with flowers.

Since the process of hybridization has been applied to this tribe, some remarkably elegant varieties have been produced, the handsomest of which in our collection is the *Cartòni*, a perfect gem. In Belgium, some still more striking varieties have been produced, one of which is a deep red with distinct stripes of blue,—a combination of colors rarely seen in flowers. Of the many kinds already introduced, the following are the best :—*Rùbra*, *speciòsa*, *alba máxima*, *macrophy'lla variegàta*, *insígnis*, *bícolor*, *Cartòni*, and *Celestial*.

Their cultivation is very simple. The bulbs should be

potted in April or May, and placed in a hotbed or very warm part of the greenhouse to give them a start, and, when rooted, they may be shifted into large pots, and placed upon the stage for the season. From October to March, they may be kept in any dry place, the pots turned down on their sides. Peat, leaf-mould, and sand is the proper compost.

GESNERAS.

The Gesneras are all very beautiful plants, and some of the recent additions to the tribe possess remarkably brilliant flowers as well as the richest foliage. Of this character are *zebrina* and *Gerardiàna*. One, the *tubiflora*, is highly fragrant, and a single raceme of its showy flowers will perfume the greenhouse. The best are *G. rubra*, *zebrina*, *spléndens*, *Coopèrii*, *Gerardiàna*, and *tubiflora*: culture and treatment the same as for *Gloxinias*.

FUCHSIAS.

The Fuchsia, in its numerous hybrid varieties, is one of the most valuable ornaments of the greenhouse, the balcony, the verandah, or the parterre. In either situation, it always shows to good advantage, and, when the specimens are well grown, their profusion of flowers renders them the most attractive objects. We have already said so much in favor of the fuchsia, and given such an account of the fine specimens we saw in English collections, that it is unnecessary to again repeat it. We may, however, say a word in favor of some varieties which we have found to bear the heat better than others, and which are, therefore, more desirable. These are, *Defiance*, *Salter's 40* and *Salter's 41*, *Chauvièrii*, *Expansa*, *New Globe*, *E'ppsi*, and *Queen Victoria* (Smith's).

HIBISCUSES.

The Chinese hibiscuses are the most gaudy objects in summer, and, when the plants are large, and bloom freely, they add much to the effect of a well-arranged house. The plants should not be too numerous, but scattered here and there; their large and showy flowers are always admired. There are four varieties, the scarlet, yellow, salmon, and rose.

They require good-sized pots, and, in winter, they may be stored under the stage, or in a dry cellar.

MISCELLANEOUS PLANTS.

Verónica speciosa.—A brilliant and beautiful object, flowering from June to August, and singularly elegant from its heads of rich, violet flowers, and smooth, shining, fleshy foliage.

Hydrangea japonica.—This new and fine species, which we have already given a full account of, with an engraving (p. 123), is a rich addition in the early part of the summer. Its heads of blue and white flowers attract universal admiration.

Thunbergia chrysops.—A climbing plant of peculiar beauty. Rather shy in blooming, but well repaying for all the care to bring it into a flowering state. This is done by encouraging the plants to grow freely early in the season, and then to commence stopping the shoots as soon as they attain the length of three or four inches. In this way, we have succeeded in producing a fine display of flowers. Its cærulean petals, with a golden eye, are charmingly beautiful.

Passiflora fràgrans.—A highly fragrant species, with very beautiful flowers, and blooming freely, if trained up to a neat trellis. It should be in every good collection.

Campánula grândis.—A very showy plant, attaining the height of five or six feet when well grown; and clothed with flowers from the pot up. We have already fully described this, and given an article on its treatment, (XII. p. 346).

Lisianthus Russellianus is also a very fine plant, though rather difficult to manage well: when grown in perfection, its numerous deep-blue flowers contribute much to the beauty of the greenhouse.

Our list could be easily extended with other plants, many of which are already familiar to cultivators. We have no space to enumerate more at this time; but, at another opportunity, we shall name several new kinds which have just been introduced, and which are stated to be fine objects as summer and fall flowering plants.

REVIEWS.

ART. I. *The Fruits of America, containing a Selection of all the choicest varieties cultivated in the United States.* By C. M. HOVEY, Editor of the Magazine of Horticulture. In Octavo and Quarto Nos. every alternate month; with four splendid colored plates, and eight pages of letter-press. Boston. 1847.

AFTER the appearance of the prospectus to this work, which all our readers, who are interested in fruits, have probably noticed, it is not necessary that we should recapitulate the objects for which it was published. Suffice it to say, that such a work has been long needed, and is, in truth, necessary to extricate us from the confusion which exists in all collections of fruits.

We have for some years contemplated a work of this kind, and have been collecting, from all the sources in Europe, as well as at home, every variety of fruit, with a view to form a collection which would enable us to study the habits and characteristics of the trees; to detect errors and identify kinds; and draw up a truthful description of every desirable fruit. As a cultivator, we have long felt the want of this; convinced, as we have been, that a greater part of the errors, and the confusion and disappointment attendant thereon, might have been, in a great measure, prevented, could we have had recourse to such a publication. In a country covering such a vast extent of surface and passing through as many hands as fruits usually do before they reach every state and territory, it could not otherwise than be expected that some mistakes would be made, even with all the care of the most careful cultivator: but when we recollect that a great many dealers in trees are not nurserymen, and have but little acquaintance with trees, these errors are constantly increasing; and, without resorting to original descriptions, and actual representations of the wood, foliage, and fruit, there is no way to rectify, with certainty, these errors.

Preparatory to the issuing of such a work, we neglected no opportunity to gather all the materials to render it valuable

and permanent—a standard for our nomenclature. Our tour to Europe was undertaken with this in view; and our visits to all the most extensive nurseries, and to the garden of the London Horticultural Society, the Jardin des Plantes and the Luxembourg garden, of Paris, were for the main object of making ourselves acquainted with certain fruits which, for years, have been cultivated under erroneous names, and erroneously described in our treatises on Pomology.

Premature descriptions of fruits only tend to perplexity and confusion: such has been the effect of too many of our works on fruit. The late Mr. Manning, after the experience of a *quarter of a century*, only began to describe the fruits which he had proved and identified during that time; and the London Horticultural Society, with all the means at their command, described but a few additional fruits in their *Catalogue* for 1842, published ten years after their previous edition of 1832,—and this is what gives it its chief value. Fruits so change, with soil, locality, and treatment, that neither one nor two years will enable any individual to judge with accuracy of their true character.

Long impressed with these ideas, we have been in no haste to give the results of our investigations; but, trusting to a due appreciation of our efforts, undertaken with a view to accuracy, we have issued the first number of a work which, we hope, will supply the desideratum so long wanted. Of its merits, we shall leave cultivators to decide.

Of some of the peculiar features of the work, we may be permitted to speak. The first of these are portraits of trees of such kinds as are at all peculiar in their habit of growth,—for instance, the pear and apple. No pomological work has ever attempted this.

Mr. Loudon, in his great work, the *Arboretum Britannicum*, has shown how important such portraits are, in identifying ornamental trees and shrubs: but how much more valuable must they be, when brought to the aid of pomologists, to enable them to detect synonyms and identify varieties!

A second feature is, the outline engravings, with the text. These will enable the cultivator, after comparing specimens of fruit with the colored plate, to test them further by an outline; on some thin paper the form may be traced off, and then the

pear cut in halves, laid down upon the drawing, and examined.

We need not say, how important are the representations of the wood and foliage. Professor Agassiz, a friend informs us, has made a collection of many kinds of our forest trees, by the wood alone; and, if we are correctly informed, he stated that botanists should rely more upon the wood than the sexual formation of the flower.

Our artist is too well known to need our praise; but the specimens show that the art of chromo-lithography produces a far more beautiful and correct representation than that of the ordinary lithograph, washed in color, in the usual way. Indeed, the plates have the richness of actual paintings, which could not be executed for ten times the value of a single copy.

It will be the object of the work to figure and describe all the rare and choice varieties of fruits, both *new* and *old*, which may deserve a place in any select collection. 'The first number contains the Beurré d'Aremberg, Glout Morceau, and Van Mons Leon le Clerc pears, and the Baldwin apple. No. 2 will contain the Vicompte de Spoelberch, Winter Nelis, and Sieulle pears, and the Northern Spy apple.

ART. II. *A Dictionary of Modern Gardening.* By GEORGE WILLIAM JOHNSON, Esq., Fellow of the Horticultural Society of India, &c: *with One Hundred and Eighty Wood Cuts.* Edited, with numerous Additions, by David Landreth, of Philadelphia. 1 Vol. 12mo. pp. 635. Philadelphia, 1847.

THE eagerness of our cultivators for Horticultural information has induced the republication of several English works, with annotations and additions, and they are about as numerous as those of American authors. 'This, however, is to be expected in a country yet in its infancy in Horticultural and Pomological science. With due allowance for variation of climate, English works may be made applicable and useful to every cultivator, and, until our own practice and experi-

ence shall have become more extensive, they must be the source from whence we must draw largely for information in every department of gardening. Of the best of recent publications of a general nature, that of Mr. Johnson holds a conspicuous place, containing, as it does, a great amount of information in a small volume, and placed within the means of every cultivator who cannot afford the expensive Encyclopædias of London.

The American edition now before us has been under the editorial supervision of Mr. D. Landreth, of Philadelphia, and, in its arrangement, the usual style has been laid aside. The preface of the American publishers informs us that "the ordinary form in cases of a reprint, with additions and explanatory notes, has been departed from in the present instance, with a desire to preserve the book from the awkward aspect which it would necessarily present if every addition by the American editor had been included within brackets, or printed in varied type."

They also inform us that "this edition has been greatly altered from the original. Many articles of little interest to Americans have been curtailed, or wholly omitted, and much new matter, with numerous illustrations, added: yet the present editor freely admits, and has desired the publishers freely to state, that he has only followed in the path so admirably marked out by Mr. Johnson, to whom the chief merit of the work belongs."

We must willingly admit that a book whose every page is marred with a profusion of brackets, or a varied type, to designate the editor's notes, has our especial dislike; and, if we can know just what the original writer states, and avoid this, it is a great improvement in the republication of foreign works. Without having time to compare this with the English copy, we notice that, on all important subjects, the editor informs us how far he has followed the original.

The arrangement is alphabetical, and one of the most important as well as earliest subjects is the apple. Here we have apparently nothing of the English edition, as the editor copies a list of apples from the catalogue of Messrs. Landreth & Fulton, with the remark that they are believed to be eminently worthy of culture. The descriptions of several vari-

eties follow, accompanied with outline engravings of seventeen kinds.

The Baldwin is among these, and the editor states, "though nearly confined to New England, it ought to be an apple of the world. It has few superiors, and is above average quality in all respects: few taste it without admiration."

The descriptive list of cherries is illustrated with engravings of eight of the best varieties.

The following biographical sketch, probably by the American editor, will interest many of our readers, and afford a specimen of the writer's style:—

"LANDRETH, David, was a native of England, the son of a farmer of Berwick upon Tweed. Early in life, his attention was attracted by plants and flowers, and, yielding to his fondness for them, and impulses which they only who love nature can fully appreciate, he determined to adopt gardening as a profession. At that day, the art was less widely and ardently pursued than at the present, and the sources of information, and consequent means of improvement, were limited. Then publications on the subject were not, as now, of almost daily issue. Periodicals on gardening and rural affairs were unknown; and, save the works of Miller, there was scarcely one for reference. Since then, Horticulture has assumed its rightful place as a delightful, if not a fine art, cherished and pursued by the intellectual and refined.

The subject of this sketch, after having availed himself of the usual routine of practice in the neighborhood of his birth-place, as a mean most likely to promote his views, and extend his knowledge of the more approved rules of the profession which he had espoused, removed to the vicinity of London. Here he profited by an observance of the operations in the extensive nursery establishments and pleasure grounds around the metropolis; and, having prepared himself for the efficient practice of his art, embarked for America. The hostilities between the mother country and her colonies, then existing, prevented his sailing for a middle port, and he accordingly took passage for Quebec, where he resided for three years. On the conclusion of the war, his longing desire to remove to a southern point, and climate more genial to his pursuit, could now be gratified; and, in the autumn of 1784, he arrived in Philadelphia, the spot towards which his eye had been unwaveringly directed—but why, he has been heard to say, he could not tell. There, all were strangers. Within its wide extent, there did not live a solitary being with whom he could claim acquaintance, much less friendship. How many have since followed from their father-land, and found peaceful and happy homes!

With a pocket but scantily supplied, and winter approaching, when but little employment in his line could be expected, he availed himself of a

temporary engagement. It was not long, however, ere his qualifications and correct deportment secured the favorable notice of Robert Morris, the distinguished revolutionary patriot, in whose employment he entered, and continued for several years, and with whose regard he was honored until the close of Mr. Morris' eventful life.

Mr. L., on relinquishing the employment of Mr. Morris, was enabled to carry out his long-cherished and original design of establishing himself as a Nurseryman; and shortly thereafter laid the foundation of what has been known throughout the Union, for more than half a century, as the "Landreth Nurseries." He ultimately associated with himself a younger brother, Cuthbert, who had followed him to America, and their united efforts enabled them successfully to conduct what was then considered an extensive business. A scrupulous regard to what was due to others secured respect and moderate competency.

To the brothers Landreth, Philadelphia is, in a degree, indebted for the early development of horticultural taste, and in the facilities which they afforded for its gratification, the whole Union has participated. Their productions, ornamental and useful, have been distributed far and wide. Specimens of fruits and flowers from their grounds exist in almost every town and hamlet in the country. The earliest collection of Camellias in America was made by them, and their importations of valuable plants and fruits were extensive. Their collection of indigenous plants, obtained through the agency and friendship of traveling collectors, and local correspondents, was, perhaps, the largest of its day, if we except the magnificent one of the Bartram Botanic Garden.

How vast have been the enlargement of horticultural taste, and the means of gratifying it since Mr. Landreth first embarked in his floral enterprise! Then a green-house, or, as it was popularly termed, a "glass-house," was an object of amazement, and a simple rose, exhibited in a window budding and blooming "out of season," attracted a wondering crowd. Now a residence in town or country is scarcely considered perfect which does not embrace at least a room prepared for the preservation of plants; and the thousands who throng the exhibitions of our Horticultural Society evince the extent of interest on the subject.

The temperate and regular habits of Mr. Landreth promoted health, and protracted life beyond the ordinary term. In manners, he was plain and unobtrusive; his temperament ardent, actively sympathizing with the afflicted, or warming with indignation at oppression. His fondness for plants increased with age, and, though their culture was the source of his support, he loved them for themselves alone. 'Trade' was, with him, an adjunct to the gratification of a refined enjoyment. Never did painter look upon his canvas, in glorious enthusiasm for his art, with an eye more abstracted from the lucre which his pencil brought, than did David Landreth in the contemplation of his floral family. A beautiful plant, a noble tree, or a landscape decorated by the hands of nature or of man, were to him objects of the purest pleasure. After an active and well-spent life, and with an enviable reputation, he died on the 22d August, 1836, aged 84."—pp. 337, 338.

The interest which is now extending in the cultivation of the pear has probably induced the American editor to add as much information as possible: and fifteen engravings of the best kinds accompany the descriptions, some of which are quite new. The latter are called the Haddington and Moyamensing, both of which originated on the farm of J. B. Smith, near Haddington, Philadelphia. Both of these have been described, in a letter to the Massachusetts Horticultural Society, by Dr. Brinkle, of Philadelphia; but, as we have not found time to insert them before, we copy them here:—

“HADDINGTON, (*Smith's*.) We have, by the merest chance, this excellent addition to our stock of winter pears. Mr. J. B. Smith, when on his farm, near Haddington, Philadelphia County, in 1828, reared, from the seed of the pound pear, a number of young plants for stocks. This one accidentally remained unworked, and, on Mr. Smith's removal to the city, was brought by him and planted in his garden, where it now stands, singularly erect, and with few horizontal branches. It comes into use in December, and keeps through winter. The skin is green; when ripe, slightly yellow on the sunny side, and marked by minute russet dots or specks. The texture of the fruit varies—some are quite melting, others incline to break; it never cracks, bears abundantly, and we conceive it quite an acquisition to our winter pears.”

“MOYAMENSING, (*Smith's Early Butter*.) This is supposed to be a native. It stands in the garden of Mr. J. B. Smith, Philadelphia; is thirty feet high, open in growth, and uniformly sheds its leaves early in August. The fruit vary in shape: some are roundish, others obovate; color, a uniform light yellow. Stem, an inch long—in some specimens set in a shallow basin; in others rising from the crown, with a fleshy and enlarged base. Calyx rather prominent, in a shallow plaited cup. Ripe from middle July to close of August. The texture is buttery—so much like a Beurré as to have received the above synonym. It is a desirable variety.”—pp. 432, 433.

The Strawberry is treated of at length; and, after quoting from the English copy, the American editor makes the following remarks:—

“The American reader, though he will find much which will instruct in the culture of this delicious fruit, will perceive there is too much detail and tedious labor.”

“Many of the varieties named in the preceding article are comparatively unknown in this country, and others have been tested, and found wanting. Our American seedlings have, on the whole, given most satisfaction, and are most reliable; whilst the efforts now being made to produce varieties promise, from the success already attained, to give all that could be desired.”—p. 571.

The editor has shown his good judgment in describing only four or five varieties, as there are, in fact, less than that number of superior kinds. Two only are figured; namely, Hovey's seedling and the Cushing, a variety raised by Dr. Brinkle, of Philadelphia. It is gratifying to us to know that our seedling has proved so excellent everywhere. The editor states that "too much cannot be said in its praise." The editor has also the correct opinion of its character; and adopts our conclusion, that it will not bear without being in the neighborhood of staminate kinds.

Ross's Phœnix, which has been so highly praised by some individuals, has, so far, proved unworthy of cultivation in the neighborhood of Philadelphia. Such has been the experience around Boston; and its growth is now nearly given up. We never yet saw so small a quantity as *one quart* of the Ross's Phœnix, although it has been grown about Boston these six years. Like the Swanstone seedling, the vines nearly all burn up in summer, and what few remain are quite killed by the winter. Experience thus shows the fallacy of cultivating every new variety of strawberry because it is a seedling, and also the importance of giving a new variety a trial of more than one year before it is propagated and sold as superior to all others.

The *Cushing* is stated to be very large, high-flavored, and productive: we shall speak of it after we have given it a trial. A plant was exhibited before the Pennsylvania Horticultural Society, in 1846, with *twenty-six* fine berries on it. Mr. Breck, who, in company with Mr. Haggerston and other cultivators, visited our garden last summer, to inspect a large bed of the Seedling and the Boston Pine, counted *one hundred and forty-three* berries on a single plant of the latter. We are eager to possess a variety which will excel this in productiveness.

In conclusion, we can commend the American edition for considerable originality, and for its adaptation to the wants of a large class of cultivators. The volume treats upon every subject which comes within the province of the garden. A full monthly calendar is given; and, with the various classes of plants which are treated upon, a list of all the most select and choice varieties. It is printed in a small, neat type, and is embellished with a number of engravings.

ART. III. *The Journal of the Horticultural Society of London.* In Quarterly Numbers 8vo. Eighty pages each.

WE some time since announced the publication of this Journal, which commences a new series, in a cheap octavo form; the old and expensive quarto having been discontinued, after running the society deeply into debt. This series commenced on the 1st of January 1847, and one volume complete, and parts 1 and 2 of the second, have been issued. We have already given several extracts from the first volume, but very little has yet appeared which could be considered of much interest to a majority of our readers. The papers have been long, and some of them rather dry,—more theoretical than practical,—as a majority of the communications have been, and ever will be. The magazines of the day, appearing as they do weekly or monthly, are the sources to which the cultivator looks for information, and the source through which the practical man prefers to communicate with his professional brethren.

The chief value of the Journal of the Society is the publication of its own transactions, which interest a very large number of fellows who look to it for an account of what is doing in the Society's Garden,—for descriptions of all the new plants, trees, shrubs, fruits, vegetables, &c., which are introduced through the Society's Botanical collectors and correspondents—for the details of Experiments carried on in the garden—and for scientific discussions in the various branches of Horticulture.

Among the scientific papers, one of the most valuable is an essay on "Hybridization amongst Vegetables," by the Hon. and Rev. Mr. Herbert, which fills a larger part of two numbers of the work. The Rev. author arrives at the following conclusions relative to the specific difference of plants :—

"When the generic characters, as ultimately stated by Enlicher, of *Pisum*, the pea and *Vicia*, to which the bean belongs, are carefully compared, it will appear that, except a little prolongation and straighter position of the flower, which, in some other races, would be immaterial, the only fixed feature of difference is the asserted roundness of the seed in pea, and its lateral compression in the vetch and bean, a feature which, if the fact were undeniable, is insignificant in many other genera. If the pea,

vetch, and erect bean have sprung from one type, and are convertible, to what result does that fact lead us? Can we maintain a multiplicity of created roses, cistuses, potentillas, cornflags, and irises, in the face of that fact? Are we not forced thereby to the points, which I urged above thirty years ago, that the genera are the substantial divisions in botany; that the asserted difference between the species and local varieties of botanists has no firm basis; and that it is a matter deserving grave consideration, whether even a multitude of established genera are not variations from fewer original kinds, of which the real limitation may be found in a higher position amongst tribes, classes, or orders? And, if that point be established, as I humbly think it must be in the vegetable kingdom, upon what footing will the species and varieties of zoologists stand, when the analogies between plants and animals are fully considered, which it is not my province, and which I do not pretend to have sufficient depth of knowledge, to investigate?"—p. 103.

In our early volumes, (I. II. and III.), we gave two capital articles on the cultivation of asparagus, which is rarely seen in good perfection. As many of our present readers may not possess those volumes, we extract the substance of a paper on its culture, as detailed in the first part of Vol. II. :—

"In selecting the ground for permanent beds, choose a piece free from trees, and sloping to the south, if possible. I should prefer a strong sandy loam of the depth of three feet; if not naturally so deep, make it that depth artificially. Take out a trench two feet six inches wide and three feet deep, laying one third of the soil on the vacant ground where you commence, and carrying the other to the place where you intend to finish. Suppose the trench to be now taken out, and the ground ready for trenching, lay over the whole surface six inches in depth of dung from old hotbeds, shaking it well with a fork. Turn in the first spit and crumb with a full-length spade into the bottom of the trench, mixing the dung and soil thoroughly together with a fork; then throw on the other soil, until the second trench is the same depth as the first; and so proceed until you come to the last trench, into which throw half the earth taken back, and add dung equal to that for the first spit, mixing it and the soil well together with a fork, as before. Now that the ground has been once trenched over, and the bottom spit thoroughly mixed, tread the whole surface, and again lay on it about six inches in depth of dung, shaking it well as before. Then proceed to trench the ground back, leaving the bottom spit that has been mixed with manure unmolested. Proceed as before: after the first spit and crumb have been turned in, mix the dung and soil well together with a fork, which will be two thirds of the trench mixed, throwing on the top the remainder of the earth unmixed with dung, until you come to the first spit that has been mixed, and so continue until the ground has been all trenched a second time; then throw in the earth laid out at the commencement of the trenching, adding dung equal to that for the spit just thrown in, and well mixing

it with the soil. There will now be an opening at the top, and one third of the earth left at the bottom. Tread the whole surface over, and again lay on six inches in depth of dung, forking it up the hill, and keeping the same opening. The whole mass of earth and dung will then be thoroughly mixed from bottom to top, and the opening will take the remainder of the earth thrown out of the first trench.

The work should be done in dry (not frosty) weather—say, in October. The ground being thus prepared, throw it up in rough spits, one spade deep, to be pulverized by the frost against planting time.

My time of planting is, when I observe the plants to have grown about an inch above the ground in the seed-bed, choosing a dry day when the soil will work freely. After having marked out my beds four feet in width, and having allowed two feet for the alleys, I strain a garden line on each side, and, as before mentioned, with a rake draw the soil equally off the bed into the alleys about two inches and a half deep. I then strain the line exactly through the middle of the bed, and, with the point of a dibble, make light marks one foot six inches apart. That being done, I then strain the lines nine inches from the margins of the bed, being a distance of one foot three inches from the middle row to the outside ones. These I mark in the same way as I did the middle one; but so that the plants will not be opposite each other. Every thing being now ready, plants are obtained from the seed-bed, selecting the finest, and exposing them as little as possible to sun and air. I place one plant over each mark made in the bed, spreading the roots out as regularly as possible on the surface, and laying, as I proceed, a little soil with the hand from the alleys on the plants, in order to fix them in their places. The bed being planted, I strain the lines on the outside, and, with a spade, throw the soil from the alleys over the crowns, covering them about an inch and a half, but not deeper. If any burned vegetable matter can be obtained from the rubbish heap, I should recommend coating the beds over about half an inch in depth with it, after they have been planted. In autumn, when the stalks are ripe, cut them down close, and clean off the beds, taking care not to disturb the soil, the crowns being so near the surface. Make a mixture of equal parts rotten dung and burned garden rubbish, and coat the beds with it three inches in thickness, just covering it with soil from the alleys. In this state, allow them to remain during winter, and, early in March, run it through with a fork down to the level of the bed when covered.

I have cut a few heads the second year after planting; but in the third year one half the fine asparagus that comes up may be cut without injuring the plants. The fourth year, the beds are in fine bearing condition; and when in this state, my method is, to keep every thing cut, both large and small, up to the first or second week in June, with the exception of the heads selected for producing seed. After this time, I allow the whole to take its natural growth, and I find my beds to continue for years in a good bearing state. Some of them were made ten years ago, and I have cut finer asparagus from them this season than I did three years back. And I

must mention, further, that I have not put a barrow-load of dung on them for four years. In the summer months, I keep the rubbish of the garden burning, preserving the ashes dry until autumn ; and as soon as the asparagus is fit to cut down, I take off half the soil above the crowns with a fork, laying it on the alleys. I then put on three inches in thickness of burned rubbish, running it through with a fork as near the crowns as possible without injuring them. I then take a portion of the soil that has been removed, and cover the beds with it, allowing it to remain on them through the winter. Early in March, I mix the whole well together with a fork, and rake the beds off regularly, watering with manure-water once a week through the growing season, if required.

I have grown a crop of turnips or lettuces on my beds every year since they were planted ; but I do not recommend the plan, if sufficient ground can be had for these crops in other parts of the garden.”—pp. 39, 40, 41.

Mr. Meek, the champion of Polmaise heating, has a long article on the subject ; but the success of the system has been confined to so few, that we shall not enter into a discussion of it till we have more evidence of its general application.

Under our head of Floricultural Notices, we shall mention all the new plants of interest which are described in the *Journal*.

ART. IV. *A Brief Compend of American Agriculture.* By R. L. ALLEN. 12mo. pp. 437. 2d Edition. New York. 1847.

At page 487, (Vol. XII.) we noticed this work, and we are happy to learn that a second edition has already been called for,—the best evidence of its value. We again recommend it to the attention of every friend of Agricultural Improvement.

MISCELLANEOUS INTELLIGENCE.

ART. I. *General Notices.*

Scarlet Pelargoniums for Winter Blooming Plants.—The Huntsman and General Tom 'Thumb scarlet geraniums, deserve more attention than is generally paid them, as winter blooming plants. There are few persons

who will not admit, that they form objects of great beauty for the greenhouse or conservatory, during the dark and dreary months of winter; and they are plants of such easy cultivation, that I am surprised we so seldom see them in bloom in the winter time. I have seen them in bloom from September till the return of Spring, by the plan of taking off cuttings about this time, or selecting some of the best dwarf plants, from the store pots, and potting or striking them in sixties, in good rich soil; as soon as they are rooted, they can be finally shifted into twenty-fours; then plunged over the rims of the pots in the open borders, or in beds of ashes. They will require little or no attention till taken up, except to top the shoots occasionally, and to pinch off the blooms till the plants attain a moderate size, which will be about the end of August or beginning of September. In October, before the frost comes, they must be taken up, the pots washed and cleaned, and then they must be at once removed to the greenhouse or conservatory. They will be in full bloom, and a supply will come on in rotation. The little trouble that is occasioned will be amply compensated by a brilliant display of rich scarlet blooming throughout the winter. (*United Gardeners' Journal*, 1847, p. 241.)

Root Pruning Trees.—Some three or four years ago, when the subject of root-pruning was first discussed, we felt much interested in the subject, and republished an article by our correspondent, Mr. Rivers, of the Sawbridgeworth Nurseries, England, showing the benefits and advantages of the system. We also practically satisfied ourselves that the plan was an important one to every cultivator, enabling him to bring trees into bearing, when all other means had failed. But some of our amateurs and professional men have not been convinced of its utility, and even our friend, Mr. Ernst, in a recent article, (p. 57,) views the system “as a sort of horticultural heresy, calculated to do much mischief,” which “will have its day, and then be permitted to slumber among the errors of the times.” To all who entertain such impressions, we invite their attention to the following remarks; and when they have proved them by experiment, as we have, to be correct, we doubt not it will be generally adopted where it is desired to grow a variety of trees in a small space, and speedily bring them into fruit.—*Ed.*

As I was one of the first who called your attention to the root-pruning of pear trees, for the purpose of making them bear early, I was glad to find, on a visit to Sawbridgeworth Nursery the other day, that Mr. Rivers has carried out, with the most complete success, his management of the pear, so as to produce early fruitfulness, and yet the most vigorous and healthy growth. I should say that you will scarcely find one tree in a hundred of his vast nursery of pears, (covering, I cannot recollect how many acres,) which is not covered with bloom. The trees are three to four feet high, trained conically, and, with few exceptions, all grafted on quince stocks. In addition to the dwarfing effect of this stock, he finds many of the best kinds of pears, which are worthless on pear stocks, produce excellently flavored fruit on the quince. There are, however, some kinds which he finds it impossible to cultivate on this stock, and therefore, in order to avail

himself of the advantages of the stock, he first grafts on it a common pear, and then grafts or buds the reluctant or refractory variety on the pear; and by this mode of double working, he procures a good bearing tree, with all the advantage of the quince root. Five years ago, I had small pear trees, with bloom buds in November, which bore a good crop in the following year; and any one who had laid in a stock of these little conical trees last autumn, might have this season had an orchard of pears in full bearing, always presuming that we do not have such a May to destroy our fruit as we had last season. It is astonishing what a collection of these trees may be contained in a small space; from five to six feet apart, in rows running north and south, is quite space sufficient. I feel satisfied that not half sufficient attention is paid to this fruit for our desserts; a very little care, and a judicious selection of sorts, would ensure them daily from the end of July till May. I found two sorts in Mr. Rivers' fruit house, both in excellent order—the *Fortuné*, an admirable pear, and the *Ne plus Meuris*, and I dare say these will be equally good a month hence. I think he told me he had nearly 900 kinds, of course very many of which are worthless, but there are many which he has not yet proved; and again, although his grounds afford a great variety of soil and aspect, yet as it is known that climate, aspect, and soil have a strong influence on the excellence of the fruit, we are still in want of information from your various correspondents on this subject. There are many kinds which produce finer looking fruit on walls, which, however, are much surpassed in flavor by the smaller fruits, as on espaliers or on conical shaped standards. I have adopted a suggestion of Mr. Rivers, in planting a conical trained standard near the wall between my peach trees, and find the fruit of the tender varieties better flavored than what is grown against the wall; and these trees take up little or no wall. Mr. Rivers finds the trees grafted on quince stocks flourish better when the whole of the stock is covered with earth (he grafting at about six inches from the ground) as the stock is apt to get hard and hide-bound, especially when the graft is of a kind of vigorous growth. He has planted several on mounds of earth, tonguing the stock to encourage the throwing out of small roots, and he proposes in the autumn to replant them, cutting away the bottom strong roots, and then obtaining little else than a mass of fine fibrous roots for the support of his tree, which will make fruitfulness certain. When this matter was first discussed, that is, a systematic course of root-pruning, for we all admitted that it was occasionally done before, the objectors cried out that no good fruit would be produced; that the fruit like the trees would be stunted and without flavor and gritty. I can report that the fruit on my root-pruned trees has been finer than that produced on old trees which were left in their natural state; but these pruned trees must be duly attended to, manured, and must be mulched in a dry summer.—(*Gard. Chron.* p. 253.)

Culture of the Chinese Primrose.—In pot culture, two different methods may be pursued. When the object is to obtain a number and succession of plants, three or four sowings should be made from the beginning of July to the end of September. As soon as the seedlings have formed two proper

leaves, they may be potted in small thumbs, and afterwards progressively shifted till they are in pots of the required size : four and six-inch pots will generally be found large enough. The soil proper for them consists of one-half sandy loam, the other half leaf-soil, or leaf-soil and peat. The seeds may be raised in a slight hotbed, where the plants may remain until they are established in their first shift ; they must then be removed to a cold frame, open day and night, and covered with glass only during violent rain. On the approach of frost, they may be removed to a cool, airy part of the greenhouse, as near as possible to the glass, as, without abundance of light and air, the flower-stems will be drawn, and the colors will be dim. They require, at all times, an abundant supply of water, and, therefore, the pots should be well drained to ensure a due circulation ; for few plants are more impatient of stagnant water about their roots. Some recommend the plants being placed a little deeper in the pot at each shifting, but that is a bad practice, being calculated to cause them to damp off at the neck. In this way, a succession of flowering plants may be maintained from November to May ; those with the largest flowers and finest colors only should be reserved for seed ; the others may be destroyed as soon as their beauty is past. I anticipate that we shall, by and by, have spotted and variegated varieties : perhaps, by impregnating the white and pink with each other, something of the kind may be produced. Those intended for seed should be placed in a drier atmosphere and higher temperature than the greenhouse affords.

In the cultivation of large specimens, either of the single or double varieties, healthy young plants may be selected in the beginning of August, in four-inch pots, with their roots just appearing at the outside of the ball : they may at once be transferred to pots a foot in diameter, prepared in the most careful manner ; they should have not less than two inches of large crocks in the bottom, then a thin layer of fine pieces, which should be covered with the fibres of turf or peat ; the soil may be the same as before recommended, but the loam should be in large turfy pieces, and mixed with a third part of crocks and pieces of charcoal ; the whole should be carefully placed in the pots, and mixed with pure but sharp sand in such a manner that veins of it may run right through the mass ; the soil ought not to be pressed into the pots, but merely slightly shaken, and the pot beat on the potting-bench. The plants should have been well watered a short time previous to potting, and will not require a further supply for two or three days. They may be placed on a gentle hotbed until they begin to grow, but must not be allowed to remain longer than a week, when they must be removed to a cold frame, and elevated upon inverted pots until their leaves are on a level with the edges of the frame. Air must be increased gradually for a few days ; afterwards, the lights may be taken off for two or three hours, morning and evening, and during the middle of the day, and at night, tilted upon the side opposite the quarter from whence the wind blows. A slight shower in the morning or evening will be of benefit to them, but not more than will suffice to wet the leaves ; nor must heavy rain be allowed to fall upon them ; for a thunder shower of very short duration

would counteract the effect of all previous care. During bright weather, slight syringings morning and evening may be given immediately before putting on the lights. They should not be too frequently watered, but, when water is given, it should be in such quantity as will thoroughly penetrate the soil, and run out at the bottoms of the pots. The soil in the pots should be maintained in a condition to admit a free circulation both of air and water, so that, when water is given, it may quickly disappear from the surface, and make its way through the mass. They may remain in the frames until the weather becomes too cold for them, when they must be removed to the greenhouse or conservatory.—(*Gard. and Land Steward's Journal*, 1847, p. 241)

Thinning Annual Plants.—At this season, those who cultivate annual flowering plants must be on the alert to afford a timely thinning, for, if left in the crowded state in which they are sure to spring up, they will prevent each other from attaining any thing like an average degree of perfection. Much of the necessity of this operation may be obviated by sowing the seeds moderately thin in the first instance; but, as in all cases it is necessary to deposit more seeds than can be permitted to remain, if they vegetate, there will be many plants to remove. If they are of rare or valuable species, they may be carefully taken up and transplanted into another part of the garden: if they happen to be of those kinds which are not required for such purpose, they should be pulled up, with reference only to the safety of those which are intended to be left. The number of plants which should be permitted to remain in a patch will vary according to the habits of the species; thus a large vigorous growing plant, of good habit, should stand as a single plant, whilst any of a more straggling growth, two or three should be retained, and those sufficiently near each other to form an outline of perfect unity, but not so as to appear crowded. In the case of less vigorous growing plants, about three plants should be retained; prostrate plants must be regulated by a similar rule, according to the multiplicity or paucity of their branches. In taking up the plants which are removed, care must be used that those remaining are not injured by the operation; and, that this may be the result, it should be done at as early a period as possible, that is, as soon as a few leaves are perfected. After thinning, more than ordinary diligence must be used to prevent injury from the depredations of snails, slugs, &c.; lime, from its caustic properties, is, perhaps, the best preventive, as it is not at all injurious to the plants when applied in moderation. The staking of the kinds of upright habit should also be attended to at an early period, and those of suitable habits should be pegged down to the soil, and will thus form very pleasing masses.—(*Id.* p. 255.)

Pot Culture of the Vine.—From long experience, I have proved the following method of cultivating Vines in pots to answer most admirably. The Black Hamburgh is, perhaps, the best kind for pot-culture; but I have also found the White Frontignan and Musque Frontignan (!!) to succeed well; the latter sets its fruit best in the coolest part of the house. I prefer buds from old spurs to any other. About the middle of January, the prunings are

introduced into heat, to forward the buds previous to potting, and in the first week in February the buds are prepared in the usual way. I insert one only in a four-inch pot, just covering the wood; I use leaf-mould finely sifted, mixed with a small portion of silver sand. The pots are then plunged half their depth into a bottom heat of about 70°; if the young vines receive due attention, they will require a shift in the middle of April into eight-inch pots, using a mixture of well rotted cow-dung, leaf-mould, and strong loam, in equal proportions. I then again subject them to bottom heat, until the roots fairly show that another shift is wanted, which is the final one. I employ at this shift fifteen-inch pots, and use a soil composed of three parts strong loam, and the other part cow-dung. I train near the glass, with a view to ripen the wood effectually, and pay strict attention to stopping the laterals, preserving the main branch to the length of eight feet. I always allow one foot in addition to the bearing wood, in case of a bud starting at the top, which it often does when the vines are luxuriant. During the growing stage of the vines in the fruiting-pots, I apply liquid manure once a week, made from cow-dung, and when the shoots exhibit a tinge of brown, I pick out the laterals with my finger and thumb, retaining the leaves, and two or three laterals at the extremity. When the wood is fully matured, water is gradually withheld, and the vines pruned to the required length and stored away in a dry shed exposed to the north winds; there they remain until they are required for forcing. A week previously to introducing them into heat, the plants receive a thorough watering with clear liquid manure in a tepid state. Treated as above described, they fruit most abundantly; the number of good-sized bunches I manage generally to bring to perfection, is from ten to fifteen on each vine. I may mention that I moss the stems for about a foot and a half in height from the surface of the pots; the stems root freely into the moss by keeping it continually moist. When the fruit is swelling, I supply the plants liberally with the liquid manure above mentioned, and, in addition, I apply guano-water once in eight days, in the proportion of about a pound of guano to a gallon of water; by this application I have proved that three or four pounds of fruit may be brought to perfection on a vine. The pots are placed in pans on a flue, and trained near the glass.—(*Gard. Chron.* p. 253.)

ART. II. *Massachusetts Horticultural Society.*

Saturday, May 1, 1847.—An adjourned meeting of the Society was held to-day,—the President in the chair.

The committee appointed for fixing the days of the annual exhibition, reported that they had decided upon Wednesday, Thursday, and Friday, the 22d, 23d, and 24th days of September next; and the report was accepted.

The following members were elected :—Jonathan Chapman, C. H. Mills, A. W. Thaxter, Thomas Lamb, J. E. Thayer, J. W. Blodgett, Isaac Babbitt, T. P. Cushing, and O. Everett, Jr., Boston; Joseph Murray, Medford.

Adjourned two weeks, to May 15th.

Exhibited.—**FRUIT**: Mr. J. F. Allen, of Salem, made a very rich display of grapes for the earliness of the season—his collection containing just twelve kinds, of which the following are the names :—Early Black July, Miller's Bergundy, Early White of the French, and Pitmaston white cluster, (these four are the earliest grapes, and the Pitmaston the earliest and the best of these,) Zinfindal, Ferral, Black Hamburg, White Chasselas, Chasselas de Bar Sur Aube, Aleppo, White and Grizzly Frontignan; also, Black Figs, of St. Michael. From S. Needham, cucumbers, well grown. From O. N. Towne, a brace of cucumbers. From J. F. Allen, tomatoes.

May 15th.—An adjourned meeting of the Society was held to-day,—the President in the chair.

A letter was read from Prof. Gray, accompanied with a copy of his *Flora Boreala Americana*, and a copy of Mr. Ward's *Treatise on the Growth of Plants in closely glazed cases*. The thanks of the Society were voted.

A copy of the Transactions of the Worcester County Horticultural Society was received from George Jacques, of Worcester, and the thanks of the Society were voted.

Exhibited.—**FLOWERS**: From the President of the Society, a fine display of greenhouse plants of various kinds, among which were *Azalea variegata*, *A. nudiflora ornata*, (a hardy variety,) and twenty seedling azaleas, some of them fine striped varieties; thirty seedling *calceolarias*; seedling *cinerarias* and *petunias*, and a variety of roses, including the Persian yellow, Madame Angelina, Paul Joseph, &c.; also, cut flowers of *camellias*, including two new seedlings. From T. Willott, gardener to J. A. Lowell, a variety of plants, among which were the *Nepenthes distillatoria* or pitcher plant, and a splendid specimen of *Russellia juncea*. From N. Stetson, South Bridgewater, a fine plant of *Cytisus racemosus* and Madam Desprez rose.

From Messrs. Hovey & Co., six plants of new and splendid *pelargoniums*, as follows :—Beck's Aurora, Rosy Circle, Isabella, Zanzummin, and Desdemona and Chandler's Celestial; nothing could excel the beauty of Mr. Beck's seedlings. From W. Quant, 12 *pelargoniums* of various kinds, seedling *cinerarias*, six *fuchsias*, a superb specimen of *Stephanotus floribundus*, and a variety of pot plants and cut flowers. From J. Thomas, gardener to J. L. Gardener, seedling *verbenas*, and a variety of cut flowers. From J. L. L. F. Warren, 26 species and varieties of cactuses and bouquets. Bouquets and flowers were also contributed by T. Needham, James Nugent, J. Hovey, J. W. Mandell, W. B. Richards, A. C. Fernald, A. Bowditch, and J. Breck & Co.

Premiums were awarded as follows :—

PELARGONIUMS, Class II.—For the best 6 plants, to W. Quant, \$6.

For the second best 6 plants, to W. Mellar, \$4.

FUCHSIAS.—For the best six varieties, to William Quant, \$6.

CINERARIAS.—For the best six varieties, to W. Quant, \$3.

VARIOUS SORTS OF GREENHOUSE PLANTS.—For the best twelve plants, to W. Quant, \$8.

For the second best twelve plants, to A. Bowditch, \$5.

CUT FLOWERS.—For the best display, to W. Quant, \$3.

For the second best, to J. Nugent, \$2.

GRATUITIES.—To M. P. Wilder, for a display of greenhouse plants, \$8.

For the same, to Thos. Willott, \$5.

To Henry Reed, for *Cytisus racemosus*, \$3.

May 22. Exhibited.—**FLOWERS:** From the President of the Society, twelve seedling calceolarias, some of them very beautiful; cut flowers of seedling camellias, one of which appears to possess good properties, and other varieties; Tea, Princesse Adelaide, and Solitaire roses, the former quite rare; also, Bourbon and Perpetual roses, and hardy azaleas, (forced.) From R. M. Copeland, fine hyacinths. From W. Quant, a splendid plant of *Stephanòtus floribúndus*, cinerarias, geraniums, &c. From J. Thomas, six handsome verbenas, also a fine show of sweet peas, pelargoniums, calceolarias, &c.

From Messrs. Hovey & Co., beautiful seedling pansies. From T. Needham, cut flowers of verbenas, cinerarias, abutilons, &c. From Joseph Breck & Co., hyacinths in great variety; fine varieties of *Phlòx subulàta*; white swan and other double varieties of the *Polyanthus*, with a great variety of other perennial flowers of the season. From Mrs. L. Spalding, a fine plant of *Cereus exténsis*, in full bloom. From J. L. L. F. Warren, *Burchélla speciòsa*, a new and rare species; also, *Callistèmon spléndens*, bouquets, &c. Bouquets and cut flowers, from A. Bowditch, J. W. Mandell, and S. R. Johnson.

The award of premiums was as follows:—

PLANTS.—For the best six pot plants, to W. Quant, a premium of \$2.

To A. Bowditch, for the second best, a premium of \$1.

BOUQUETS.—For the best mantel bouquet, to A. Bowditch, \$2.

For the second best, to W. Quant, \$1.

For the best hand bouquets, to A. Bowditch, \$2.

For the second best, to J. L. L. F. Warren, \$1.

GRATUITIES—To Wm. Quant, for a splendid plant of *Stephanòtus floribúndus*, \$5.

To R. M. Copeland, for a very fine display of hyacinths, \$3.

FRUITS.—Mr. Allen again made another fine display of his grapes, viz: Ferral, Black Hamburg, Zinfándal, early Black July, Grizzly Frontignan, Pitmaston white cluster, and white Chasselas; also, black and white figs of St. Michael, Azores. The Pitmaston white cluster is a small round berry, and, when fully ripe, of a fine amber color; it will ripen in from ten to twenty days less time than the Chasselas or Sweetwater. It is a very desirable variety.

VEGETABLES.—From W. Quant, fine asparagus.

May 29. *Exhibited*.—FLOWERS: From Messrs. Winship a fine display of flowering shrubs, such as spiræas, azaleas, *Pyrus japonica*, *Wistaria*, &c. &c. From J. Thomas, plants of verbenas, *Tropæolum minor*, seedling calceolaria and Pelargonium Matilda. From Joseph Breck & Co., 200 fine tulips, a beautiful new aquilegia, (*A. secunda*), *Ibèris Tenoreana*, variegated mountain ash, and other shrubs and flowers.

From Messrs. Hovey & Co., very fine seedling pansies. From E. Winslow, beautiful tulips. From A. Aspinwall, a fine display of roses. From P. Barnes, a fine plant of *Azalea Gledstanèsii*, seedling verbenas, &c. From J. L. L. F. Warren, *Euphòrbia splendens*, *Justicia carnea* and calytricha, double white and purple Chinese primroses; a variety of rhododendrons and other flowers. Bouquets and cut flowers, from W. B. Richards, E. Wight, James Nugent, A. Bowditch, P. Ivory, W. Mellar, E. M. Richards, Miss Russell, S. Walker, and others.

Premiums were awarded as follows:—

PLANTS.—For the best six plants, to J. Thomas, \$2.

For the second best, to J. L. L. F. Warren, \$1.

TULIPS.—For the best 30 distinct varieties, to Joseph Breck & Co. \$8.

For the second best 30 varieties, to S. Walker, \$6.

PANSIES.—For the best 12 distinct varieties, to Messrs. Hovey & Co., \$4.

For the second best, to Joseph Breck & Co., \$3.

To P. Barnes, for a pan of fine blooms, a gratuity of \$2.

BOUQUETS, &c.—For the best 6 hand bouquets, to A. Bowditch, \$2.

For the second best, to J. L. L. F. Warren, \$1.

A gratuity of \$2 to J. Thomas, for a moss vase.

FRUITS.—From J. F. Allen, very fine grapes, as follows:—Chasselas bar sur Aube, Black Hamburg, White Frontignan, Sweetwater, Zinfindal, Aleppo, and Grizzly Frontignan; also, white figs. From T. Needham, handsome black spine cucumbers. From W. Quant, fine black spine cucumbers.

HORTICULTURAL MEMORANDA

FOR JUNE.

FRUIT DEPARTMENT.

Grape Vines will soon be swelling rapidly, and will require a liberal quantity of air—always given early in the morning—and a good supply of moisture, which should be created by watering the walks about four o'clock in the afternoon just after the sashes are closed for the night. If dry weather should set in, the border should be mulched with some coarse strawy manure. Continue to stop the laterals, and tie in all leading shoots. If the bunches have not been properly shouldered, they should be immediately attended to. Young vines raised from eyes should now be shifted into larger pots.

Pruning and staking all kinds of trees should now be attended to. A little attention to this will add greatly to their form and appearance.

Grafted trees should be looked after, and the clay and matting removed, if the ties are girdling the stems.

Thinning the fruit is an important object, when young trees have set too large a quantity.

FLOWER DEPARTMENT.

Camellias should now be removed from the greenhouse or conservatory, into a half shady situation, and be properly arranged and placed upon boards, so that the worms cannot enter the pots. See that they are regularly syringed.

Pelargoniums will be past their beauty the latter part of the month, when they should be removed to the open air, and their branches headed in and cuttings put in, if a young stock is wanted.

Ericas should be removed to frames facing the north, or plunged out into the open ground in a half shady situation.

Diosmas, *epacris*, &c. may receive the same treatment as the *ericas*.

Oxalises, *Sparaxis*, *Ixias*, &c., done blooming, should be placed in a dry place, and the pots placed on their sides.

Japan Lilies will begin to flower this month; let them be neatly staked up, and be liberally watered, and occasionally syringed.

Fuchsias will now be in full flower, and should be occasionally watered with a weak solution of guano.

Roses wanted for flowering in beds or clumps, should be turned out immediately. Those wanted for blooming in the autumn should be plunged in the ground in a sheltered place, and the soil mulched with litter. Where a young stock is wanted, they may now be propagated from cuttings.

Ackimenes and *Gloxinias* will now be great ornaments of the greenhouse, and a good stock should always be on hand for this purpose. Repot such as require it, and bring on a fresh lot for late blooming.

Cyclamens may now be turned out into the open ground, selecting a half shady place.

Napoleitan violets may now be increased, by dividing the roots and making new plantations.

Hyacinths and *tulips* may be taken up the latter part of the month.

Azaleas, removed from the house, should be placed in a half shady aspect, and plunged in tan or the open ground.

Daphnes may still be propagated from cuttings.

Ipomœa Learii should now be turned out into the open border, and trained up to stakes at least eight feet high. It will form a complete pyramid of bloom in August.

Heliotropes may be propagated for a stock for winter flowering.

Greenhouse plants of all kinds may now be removed to the open air; and a great number of kinds do much better if they are plunged out into the border, especially *Abutilons*, *Alloysias*, *Euphorbias*, *Salvias*, and scarlet *Geraniums*.

THE MAGAZINE OF HORTICULTURE.

JULY, 1847.

ORIGINAL COMMUNICATIONS.

ART. I. *List of Tropical Plants which may be acclimated in the Southern States.* By DR. A. MITCHELL: in a Letter to Hon. H. A. S. DEARBORN. Communicated by Gen. Dearborn.

DEAR SIR,—Yours of the 18th was duly received, and its contents, as usual, perused with pleasure. I will here remark, that, agreeably to your wishes, and in observance of the rules of punctuality, I had previously requested Dr. Henry Bacon, of St. Mary's, Geo., to give me a full history of the mode of culture of the Arrow Root in that region. And as this matter is connected exclusively with our present desires to show the success in the acclimation of tropical plants, in our country, it becomes necessary to show the difference in the mode of culture and soils, comparably with that of the West India Islands. As you well know that a competent knowledge of the physical causes which affect the growth and nutrition of plants points out the more obvious means of insuring success, when I receive from Dr. B. the communication on this subject, a full detail shall be immediately enclosed to you.

It is my opinion, that all plants, however opposite the zones in which they exist, can be transplanted and acclimated with success, if the natural order of those plants can be specified and detected as an inhabitant, indigenously growing in the respective and opposite latitudes, where there are existing proofs of such facts.

We will here subjoin a list of those plants that can be cultivated with success in Florida, and gradually introduced; some of them, I am well aware, have been cultivated to a

certain extent in our country; but a new mode of chemical process, and knowledge of facts connected with scientific inquiries may revive them with more purity, and render them a lucrative article of commercial exports. Such observations would more properly include the indigo plant; likewise the madder plant (*Rùbia tinctorium*); the Turkish poppy, (*Papà-ver somniferum*); saffron plant, (*Cròcus sàtivus*); olive tree, (*Olea europæa*); tea plant, (*Thèa viridis*); coffee plant, (*Cóffea arábica*); sago plant, (*Cycas revolùta*); black pepper, (*Piper nigrum*); nutmeg, (*Myristica officinàlis*); Mahogany tree, (*Swietènia Mahàgoni*); the banana and plantain, (*Mùsa paradisiaca*, and *M. sapiéntum*); papaw tree (*Cárica papàya*); Mammee tree, (*Mámmee americàna*); date palm, cocoa-nut tree; likewise the Teak-tree (*Tectòna grándis*) which could be introduced and rendered valuable. The sugar cane (*Arúndo saccharífera*) is gradually improving in the amount of saccharine matter contained in its annual cuttings, and, since its introduction and cultivation in the southern portion of our country, its joints have become more extensively filled with the saccharine juice, and it will not be long before it will yield equal to that cultivated in the West India islands, constitutionally adapting itself to regions farther north. I am, dear sir, respectfully yours, AUGUSTUS MITCHELL.

Portland, Maine, June, 1847.

Our thanks are again due to General Dearborn for the communication of Dr. Mitchell's paper. The subject is one of deep interest to our agriculturists, and the suggestions of Dr. Mitchell, that the plants of the opposite zones can be cultivated with success in the southern portion of the country, are undoubtedly correct. It only wants some zealous cultivators to feel an interest in the matter to make a full trial of the kinds he names. The lamented Dr. Perrine, who labored so long in this great object, had just begun to see some of the fruits of his many years devotion to it, when the Florida war commenced: its long continuation delayed and frustrated his plans, and he finally fell a victim to the ferocity of the savages, who then spread over that part of the territory. Now that there is every opportunity open to prosecute the work, we hope Dr. Mitchell may find friends who will assist him in carrying out his suggestions.—*Ed.*

ART. II. *A Way to keep a Record of the Place of every Tree in an Orchard,—with or without Labels.* By M. W. PHILIPS, Edwards, Miss.

I QUOTE the first part of the above sentence from page 156, as used in the heading of an article on this subject, and I might state an advertisement, offering a farm for sale.

I herewith give you my plan, and, thinking it so simple, I would not have thought of telling any one how, but for the article alluded to.

My peach orchards I designate as "Griffiths" or "S. W. orchard,"—"Downing's," or "East orchard," and "The orchard." The first contains 25 rows, of 16 trees each; the second, 28 rows, of 16 trees each; the third not complete.

I begin at a farm road leading south, and number the first orchard as row No. 1 West, No. 2 E., No. 1 W., &c: trees in each row, Nos. 1, 2, 3, &c., going north to south—all of which rows are laid off with a compass.

I have a book in which I keep registered the names of trees, with all the necessary information; an example I give from my East orchard.

EAST. Row No. 1.

No.	Variety.	Bloom.	Leaf.	Color.	Ripens.	Quality.
1.	Snow.	Small, White.	Reniform g.	<i>(Fruit not ripened here yet.)</i>		

I am examining every tree I get, as to bloom and leaf, without regarding any description from books: I note it: after I have thus a history of all my fruit trees, I will erase every name that does not come up to description; and if a fruit is worthy of a name, that comes to me under a wrong one, and I find it differs, I will name it, for future examination. My apple orchard contains 575 trees, and rather too large for plotting. My pear orchard now numbers 165; and I have some 1200 peach trees. I could not strike out any simpler plan than mine. My peach book is more extended than any other, because the peach is our own fruit, and I am desirous of paying the closest attention to it. My pear book will note color of wood; any peculiarities in leaf; growth, shape, size, color, ripening, and quality, of fruit, if for table or dessert. But it will be years before my pears will tell.

If the 80 or 90 trees add so much to the value of Mr. H.'s farm, how shall I cipher up the worth of mine? I have not told you any thing of my plums, cherries, figs, quinces, walnuts, peccans, &c., &c. I can only say, in the way of slipping in an advertisement, that, if any one will give me his price per acre, I will throw in some 5000 buds and grafts of all sorts of fruit, together with a few Berkshires, grade Durhams and Devons, Saxons and Southdowns, Bantams, Bremen, Polands, with horses and mules, to help along, and my corn fodder and tools thrown in.

As to labels, I think I mentioned, some time since, that I had tried cedar and zinc. I have now a little more experience with them. I split the cedar about one eighth of an inch thick, three to four inches long, and about two wide. I put them into my pocket; and, whilst at leisure in the field attending to my hands, or in the shade, I smooth them with my pocket knife, and cut them into some fanciful form. I then write, with a lead pencil, the name, No. of row, and No. of tree in the row: with a sharp-pointed implement I scratch this in, then follow with my pencil. I have some of these over one year old, and the wood has blackened so much, by stain of trees, &c., that the name is not intelligible; others, that I gave a coating to of linseed oil, and then one of copal varnish, are as clean, bright, and neat, as the day they were placed on the tree.

My zinc labels, with the preparation your correspondent gave me, are rusty already, except where I gave a coating of varnish: these are bright and plain; and so are the labels that were written on with a lead pencil; and to this period of time, I would as lief have the lead pencil, as both do best with the varnish, and the lead better than the preparation—if no varnish be used.

I have now 1000 zinc plates, and a lot of copper wire, cut for the purpose of labelling my trees, and only wait for the idle time of summer. I wish to learn the name of every tree I have, and can only do so by having the name and the tree in my mind at the same time: and, the labor being my own, it is my loss.

May 10, 1847.

ART. III. *On the Cultivation and Treatment of the Grape Vine in the Greenhouse or Conservatory, with a Diary of the Progress of the Vines, Temperature, &c.* By the EDITOR.

FROM the first publication of our Magazine, we have devoted many pages to the cultivation of the grape vine under glass, and a great number of articles will be found in our several volumes by various correspondents, both amateur and professional cultivators. The management of the vine in pots was fully detailed by ourselves in our first volume, (p. 37), in the Greenhouse and Grapery, in some able papers in the same volume, by Mr. Russell, (pp. 48, 94, &c.), in the Grapery, by Mr. O. Johnson, (VIII. p. 201), and in the Cold-house, in a very valuable article, (XII. p. 384), by Mr. Russell. We now have to add our own experience on its treatment in the Greenhouse exclusively, where a valuable collection of plants is cultivated; and, at a future time, we hope also to give an article on its management in the early vinery, which will make our Magazine a complete treatise on the growth of this delicious fruit.

Our information on the cultivation of the vine has been, in a great degree, gathered from the experience of English Cultivators, and, without making any allowance for variation of latitude, climate, &c., we have followed them so strictly that an impression has been formed that the grape could not be grown in the greenhouse without great injury to the plants; or, in other words, that either the vines or the plants must suffer, whichever the cultivator may deem of the least importance. Now in the cool, cloudy, and rainy climate of England, where every gleam of sunshine, especially in winter, is necessary to the health and vigor of both plants and fruits when grown under glass, it is important that there should be no obstruction to its free penetration to every part of the house; but, under our burning sun, where, often for weeks in succession, there is scarcely a cloud to obstruct its rays, it is absolutely necessary to the well being of most kinds of plants that there should be some shade. If this is not to be obtained by vines on the rafters, it must be had by whitening the under surface of the glass, or by fitting up curtains,

which may be rolled up and unrolled as occasion may require. It is thus apparent to all, that, however so much English practice may disclaim against the growth of the grape in the greenhouse in that climate, in this country it may be successfully cultivated without injury to the plants.

Our collection consists of a great quantity of plants, and particularly of choice assortments of the camellia, azalea, rose, heath, pimelea, cactus, &c. &c., and, for the camellia, we have, in addition to the shade of the vines, had to whiten a portion of the glass. These plants have all been cultivated in the highest condition, and are vigorous, healthy, and not the least injured by the grape vines. By the time the vines require a high temperature to swell the fruit, the plants should all be removed from the house, but their places may be immediately filled with those which are suited to a greater heat, and the greenhouse still keep up its cheerful and brilliant appearance, as we have already shown in our last number (p. 263). At the time we now write, (June), the berries of the grapes are as large as bullets, and the conservatory one blaze of flowers, and the temperature 96° at noon.

Our conservatory is upwards of eighty-four feet long, twenty-two wide, ten feet high at the sides, with a *span roof*, and sashes on all sides from the sill to the plate. The inside arrangements are two central walks, one the whole length, and the other from the street front to the lawn front; another walk leads all round the house next the glass, thus leaving two spaces which are constructed with stages, and two which are level with the walks, on which the large specimen camellias and other plants are placed. With this description, we shall return to the growth of the vines :—

THE BORDER.

When the conservatory was erected in 1841, the growth of vines was not contemplated for the reasons we have just alluded to. But, in 1842, as we were desirous of proving some new kinds, and the correctness of others, of whose names we were in some doubt, we commenced the formation of the border, intending to plant the vines another year, not with the expectation that we should raise any grapes worth the

trouble—we were more solicitous about the welfare of the plants—but merely for the above object. Consequently, the border was made only fourteen feet wide, and two and a half deep, and as the conservatory was set well up with a view to have a fine gravelled terrace, the border was eighteen inches above the level of the lawn. The border was formed by carting in sods and good loam from an old pasture, and mixing with them about one quarter of well decomposed manure from the stable yard, and from old hotbeds. This was done in July and August at leisure time. In the fall, the whole was trenched over in a rough manner, and about thirty bushels of ground bones added. In this way the soil lay till the next spring, when it was again trenched over and ready for planting. We are not thus particular in order to show how a border should be made, but merely that it may be seen that a *fine crop* of grapes can be obtained without all the *quackery* so often recommended in their formation, such as a bed of oyster shells or boiled bones, dead horses, cattle, and dogs, slaughter-house manure, blood, soot, &c. All that is necessary, in our opinion, to produce the very best grapes, is a good, rich, loamy soil, well *top-dressed*, every year, with old stable manure and guano, in order to bring the roots to the surface, rather than that they should go to the bottom after the dead carcasses.

PLANTING THE VINES.

Owing to the delay in trenching the border, it had not become sufficiently settled to plant the vines before July. They were young plants one year old, and had been prepared by heading them down early in the spring, and training up one shoot which had now attained the height of six or eight feet. Holes were opened about four inches deep, and two feet broad, and the roots, after the tops had been drawn very carefully through the holes in the sill, so as not to injure the leaves, well spread out, shaking the ball completely free from soil. A good watering was then given to settle the earth, and the shoots tied up. If the work is well done, though as late as July, the vines will not receive the least injury. We do not advise late planting when it can be done earlier in the season, but even August is much better than to lose a

year, as the vines will then make a shoot from ten to twenty feet long.

GENERAL MANAGEMENT.

After the vines are planted, it is only necessary to see that the roots are well watered, should the weather prove dry, and the surface mulched with a little coarse stable manure. The leaves should also be well syringed every evening after the house is closed for the night, which should be rather earlier than usual. No other care is required but to keep the shoots tied up, looking after them every few days, and nipping off all laterals at the base of the first leaf. If duly attended to, they will reach the top of an ordinary grapery by the end of the season.

It will have been noticed that our conservatory was so constructed that the sides are ten feet high; in consequence of this, it required a longer time to get a good shoot up to the rafters; and, as no good grapes could be expected until they reached them, the vines in December were headed down to within two feet of the floor.

SECOND SEASON.—About the 1st of March, the vines began to break their eyes: as soon as fully out, all were nipped off but two; these were allowed to grow until they attained the length of two or three feet, for fear one might, by accident or carelessness, be broken off: at the end of that time, the weakest one was cut quite out, and the remaining one grew rapidly, reaching the top of the house early in the season, and making a thick and vigorous cane. The same treatment was followed as the last year: all the laterals were nipped off at the first leaf, and this repeated every time the remaining one pushed, until the wood was fully ripe, when they were cut clean off to the main eye: if done too early, it will cause the eye to push, but if at the proper season, which can only be told by the vigor of the shoots, and the ripeness of the wood, it greatly strengthens the eye at the base. Syringing should be well attended to before the plants are brought into the house, and, in September, it should be thoroughly aired to ripen the wood, on which much depends. In December, the

vines were pruned, and cut back to *three good* eyes from the bottom of the rafter; these were left to produce fruit.

THIRD SEASON.—From this period our diary commences; but, as it was not kept with the accuracy of the following year, and as there was but a few grapes, it would only occupy time and space to give it entire; we shall therefore only quote some of the remarks which were casually noted down, showing the progress of the vines, that the amateur, who wishes to follow our practice, may know how far he is successful.

March 4th.—Vines in the middle of the house have burst their eyes: those at each end much swollen.

12th.—Some of the earliest vines are so far advanced as to show their fruit buds.

22d.—Vines most advanced have shoots about twelve inches long; those which started latest about two inches. (It may be proper to remark, that a flue run *across* the centre of the house and returned again).

April 5th.—Vines most advanced have made shoots two feet long, and the largest bunches of buds are one inch long: the latest now show fruit buds.

19th.—The most forward vines have shoots now about five feet long. The two side shoots, (there being one main and two side ones), have had the ends nipped off two eyes above the fruit buds.

May 3d.—The most forward vines now begin to open their flower buds: longest shoots about eight feet. The conservatory up to this time, since the vines began to push, has been syringed every night in favorable weather,—both plants and vines.

16th.—During the last week, the temperature has been kept higher, and rather closer than usual. The most forward vines have now their fruit well set: the latest just coming into flower. The most rapid growing vines have already reached the top of the house, twelve feet.

26th.—Vines very vigorous, so much so, that the leading shoots have to be turned and trained along the ridge, and the laterals left at full length to prevent the main eyes from breaking.

31st.—The most forward vines have swelled their berries so fast that thinning has already been commenced. They are the size of large peas. All the vines now having their fruit well set, syringing has been commenced again. During the whole of May, the conservatory has been well aired, and the plants are in the best condition.

June 7th.—Nearly all the plants have been removed from the house.

14th.—The grapes have swelled up rapidly, and a few of the clusters, not having been sufficiently thinned, have been looked over again: house opened early, and closed in good season, and well damped and syringed.

28th.—During the past fortnight, the vines have grown well, and the fruit continues to swell freely. The house kept well damped.

July 12th.—Vines continue to grow finely, and copious supplies of water are thrown over the walks at noon and night. The wood now beginning to ripen, some of the lowest laterals, which were left to prevent the breaking of the eyes, were now cut off to within two buds of the main shoot.

August 1st.—The berries of the Black Hamburgh begin to color, and the Muscadine appears to be approaching maturity. The house closed early, and the walks damped,—wood ripening well.

16th.—The Hamburghs have now all attained an even dark color. The house is closed early, but damping the walks to any extent is now discontinued. The Muscadine grape nearly ripe.

31st.—Some of the Hamburghs have swelled to a fine size. The wood has ripened exceedingly well, and the vines appear in fine condition.

This ends our Diary for this season. The grapes were cut in September, and, though only from two to five bunches were allowed on each vine, they were of superior quality.

DIARY OF THE FOURTH SEASON.

Before commencing our Diary, we should remark, that the vines were very strong, and were pruned back to half their

length, about six feet. This was done in December. The shoots were then bent down, and nailed *horizontally* along the front in order to keep them back as much as possible. This is always necessary, as the heat is so much greater on the roof that they would start too early.

By the 25th of February, the eyes began to swell, and, on the 28th, they were so much pushed that they were immediately loosened from their places, and tied loosely to the trellis. From this period our Diary commences :

MARCH, 1866.	TEMPERATURE.			
	Morn.	Noon.	Night.	
1	42	72	60	Some of the vines have burst a few of their eyes.
2	39	60	47	
3	40	72	50	
4	41	72	60	
5	43	75	55	
6	43	60	52	
7	49	62	48	Weather warm during the week, and the eyes have swelled rapidly.
8	43	60	50	
9	49	70	57	
10	47	72	53	
11	49	75	55	Weather warm for the season.
12	41	75	56	
13	54	70	56	
				Vines breaking well: since they were tied to the trellis, they have been freely syringed, both morning and evening, in good weather. Some of the eyes about one inch long, and show their fruit buds.
14	58	68	57	
15	54	72	56	
16	52	56	50	Very cool morning, with considerable frost.
17	44	54	50	
18	44	62	50	Nearly all the eyes are so far pushed as to show fruit. A few vines which do not appear to
19	46	70	50	

				break even, have had the top of the shoots tied down towards the main stem.
20	49	79	60	
21	53	55	57	
22	45	70	64	
23	48	75	62	
24	48	55	50	
25	53	54	50	Some of the eyes have now pushed to the length of eight inches, and show two or three fine clusters of fruit buds. Syringing continued every night.
26	54	56	53	
27	55	68	56	
28	49	62	56	Weather mild and fine for the season.
29	50	70	60	
30	52	70	60	Many of the spurs on the old wood, which were pruned to two eyes, having thrown out a number of shoots, all were rubbed off, (disbudded), except one of the strongest, which is to form the bearing spur for next year: each of these were carefully tied up to the trellis.
31	54	69	58	The month has been very favorable for grapes, there having been but little cloudy or stormy weather. The vines have consequently done well, and some of the shoots, which were upwards of fifteen inches long, have been topped two eyes beyond the fruit buds. Both plants and vines have been well syringed every evening in good weather.
APRIL				
1	41	60	58	All the vines were now tied up to the trellis with strong matting, to prevent the weight of the grapes from breaking them down. The vines which were bent down, have broken evenly. Disbudded the shoots again on the spurs, and topped the bearing branches two eyes beyond the fruit. Weather fine, with cool, frosty nights.
2	48	70	59	

3	46	72	50	
4	44	70	52	
5	46	72	60	
6	50	75	60	Weather warm and pleasant.
7	50	72	54	
8	56	68	58	
9	46	70	52	
10	44	75	58	
11	55	72	56	
12	55	70	62	The weather has continued so pleasant and fine, that very light fires have been required the past week. Every vine has been tied in its proper place on the trellis, and all have broken very well. Wilmot's Black Ham- burgh is a little later than the old variety. The leading shoots are now about four feet long, and have had the laterals pinched off at the first bud. The clusters of fruit buds now swell out. Syringing continued both night and morning.
13	50	68	50	
14	46	70	52	
15	48	69	54	Cool, frosty, and very windy.
16	48	70	61	Very cool. Syringing discontinued on account of cool weather.
17	45	75	60	
18	56	76	60	Weather fine again, and warm.
19	58	70	58	
20	50	75	68	Weather continues fine: camellias and other plants syringed freely every night.
21	58	75	66	
22	56	72	58	
23	58	78	60	
24	60	79	57	Exceedingly warm for the season.
25	48	75	60	Cooler with rain. Good fires required to keep up temperature. Vines have grown rapidly, and some of the laterals have pushed so much as to require stopping again. Some of the main shoots have reached the top of the house, about six feet.

26	48	85	64	
27	48	80	60	Cool, with white frost.
28	48	76	63	
29	49	75	60	
30	47	60	57	The month has been a favorable one for the growth of the vines, on account of the few cloudy days. Fires have been lighted to keep up a good temperature; but allowed to cool down except during a few cold days. Some of the most forward vines now begin to open a few flowers. The border not yet having been dug, it was manured with ten or fifteen pounds of guano, and spaded about six inches deep.
MAY				
1	52	70	66	
2	53	75	68	Vines now growing rapidly, and flowers are open on several of them. Syringed the house, and all the plants for the last time until the fruit is set. Temperature slightly raised, and house closed earlier than usual. A light fire kindled every night.
3	57	75	70	
4	59	78	70	
5	58	78	70	
6	58	73	68	
7	57	75	60	Cool frosty morning. Vines looked over carefully, and all shoots tied in regularly, cutting off any superfluous ones, and thinning out the bunches of fruit where more than <i>two</i> small ones, or <i>one</i> large one, appear on a spur. All the vines are now in full bloom, except Wilmot's Black Hamburgh. The main shoots, having all reached the top of the house, have been stopped, but the laterals allowed to continue their growth for the present.
8	56	82	65	
9	59	71	65	Cloudy, wind E.
10	65	80	66	

11	56	75	62	Very cool and windy. Many of the berries well set.
12	55	80	68	
13	54	82	68	
14	58	84	70	
15	60	84	70	
16	61	82	70	Since the 11th, the weather has been warm and pleasant. Berries swell up rapidly, and some of them being as large as peas, commenced thinning. The old spurs and laterals, which pushed their eyes, have all been topped again, and the leading shoots tied up. Wilmot's Black Hamburgh now in bloom.
17	62	84	72	
18	64	81	70	
19	53	78	68	
20	58	79	67	
21	54	75	60	Weather cooler, with white frost. Rather strong fires required to dispel damp. Resumed syringing the plants twice a week. Continue thinning the fruit.
22	50	80	70	
23	52	70	68	
24	60	80	75	
25	58	70	68	
26	60	72	65	Weather cool, and good fires required. Finished thinning to-day. Cool and cloudy.
27	60	75	68	
28	62	72	68	
29	62	68	62	
30	60	70	65	
31	60	71	66	Weather continues cool and cloudy. Continues rainy and cool, without sunshine since the 23d. The month has been favorable except the last week, but rather more fire has been required than usual to keep up a good temperature, but not sufficient to injure the plants in the conservatory: both vines and plants are in good health.

JUNE

1	63	80	68	Weather warm again, and grapes now swell up rapidly.
2	62	86	69	
3	64	89	80	
4	69	86	81	
5	70	89	76	
				Grapes have swelled very fast within a few days, and are now the size of Miller's Burgundy when fully grown.
6	62	90	69	The vines having been allowed to make an abundance of lateral wood at the top of the house, where they were stopped on the 7th of May, in order to prevent the breaking of the eyes intended for the next year's crop, they have now been cut quite out to two eyes, as the grapes are now so far advanced as to take the supply of sap, and prevent any danger of breaking. The large clusters have all been shouldered, and such as seemed too much crowded with berries have had a portion of those in the middle of the bunch cut out. House thoroughly damped over all the walks, every warm day, as soon as the house is closed in the afternoon. The greater portion of the camellias and other plants have been removed to the open air.
7	60	87	65	
8	60	88	66	
9	61	90	78	The weather having been quite dry, the border has been mulched with coarse manure, and about a barrel of water given to each vine.
10	62	90	75	Weather cooler; dry east wind; house closed early and well damped.
11	65	89	76	
12	64	82	71	
13	62	85	76	
14	64	90	75	} Weather warm and dry. House well damped.
15	63	90	80	
16	61	89	80	

17	62	87	77	Gave the border about ten barrels of water. House well damped morning and evening.
18	65	83	74	
19	62	84	72	
20	61	85	71	Weather rainy and cool. Light fire kindled at night, and, to prevent any danger of mil- dew as well as red spider, the hot water pipes and flues, were dusted with sulphur.
21	63	80	70	Fire kindled in the morning in consequence of the cool, damp weather, with heavy show- ers.
22	61	81	70	
23	60	82	68	
24	59	80	66	
25	62	80	69	Since the 21st, the weather has been cool, cloudy and rainy, and light fires have been required twice to keep up a good tempera- ture. The vines having been allowed to ramble freely, all the laterals were now cut in to one eye beyond where they pushed, and all the spurs neatly tied in.
26	62	78	63	
27	61	78	64	Cool, cloudy, and rainy.
28	64	92	75	Fine again. House well aired after being kept rather close during the dull weather.
29	66	92	78	
30	65	90	73	During the month, the vines have continued to advance rapidly, and, since the refresh- ing rains of the 20th to 28th, the berries have swelled very fast. The house has been kept at a good temperature by light- ing fires five or six times only during the cold and cloudy days.
JULY				
1	68	70	71	Weather warm and dry. House well damped both morning and evening.
2	70	89	69	
3	64	88	70	
4	66	88	71	

5	67	89	75	Fine weather since the 1st of the month.
6	61	92	70	
7	66	90	75	
8	68	92	76	Grapes continue to swell up fast. House well watered.
9	69	97	78	
10	69	93	80	
11	70	98	81	Very warm during the last three days.
12	68	94	81	Warm with refreshing showers. The vines have pushed out a strong growth on the laterals since the 25th of June, and the whole were looked over and cut back to one eye <i>beyond</i> the last pruning.
13	70	90	81	
14	68	91	80	
15	67	90	78	A few berries on one of the Black Hamburg vines show signs of coloring.
16	68	88	76	Wilmot's Black Hamburg begins to color, and the berries of the White Muscadine have a transparent appearance.
17	65	86	72	
18	63	85	74	The weather since the 12th has been cool for the season, with east winds, and the house has been kept rather close, in order to keep up a good temperature.
19	64	86	73	
20	63	88	76	Warm again.
21	68	92	75	
22	70	85	75	Cool and rainy. Light fire kindled, and flue dusted with sulphur.
23	70	87	75	
24	74	90	70	
25	64	91	69	Cool and rainy weather continues, and fires are required to keep up a good temperature.
26	62	89	70	
27	62	91	70	Vines looked over again; the laterals having grown considerably since the 12th, they were again cut back to one eye beyond the

				last stopping. Wood now begins to ripen, and the main shoots are well colored to the top of the house.
28	60	90	70	
29	62	92	71	
30	62	93	81	
31	64	96	80	The weather, since the 29th, has been warm and fine, and the berries have changed color very rapidly. The Black Prince and Grizzly Frontignan begin to color well. The walks are still watered three times a day, and the house closed rather early, as the grapes always double their size, after they begin to color, if properly treated. During the day, an abundance of air is given from both top and side lights.
Aug.				
1	64	92	70	
2	64	93	80	
3	66	94	70	
4	64	93	79	
5	67	97	85	
6	70	96	80	
7	71	95	80	
8	70	93	75	Warm, with light showers.
9	69	92	78	
10	70	94	80	Cooler with showers.
11	60	93	79	
12	62	94	80	Weather fair and warm. Watering the walks still continued, night and morning, and the grapes swell up rapidly, and color well. Muscat Blanc Hatif, a new grape, and Macready's Early White, both exceedingly fine sorts, are now ripe, and might have been cut, in good condition, the latter part of July. Pitmaston White Cluster and White Muscadine are also fully ripe. All the Hamburgs have now assumed a fine dark color.
13	64	93	81	

14	63	95	74	
15	62	93	80	The weather having been dry since the 10th, gave about a barrel of water to each vine.
16	60	91	78	
17	63	94	79	
18	62	90	70	
19	60	91	71	
20	61	90	70	Cloudy and cool, with east wind and rain.
21	60	91	70	
22	60	89	78	Cut specimens of the Muscat Blanc Hatif, White Muscadine, Pitmaston White Cluster, White Frontignan, Macready's Early White, and Wilmot's Black Hamburg for exhibition,—the latter colored well, but not ripe.
23	61	90	68	
24	60	91	69	
25	60	90	67	
26	58	65	62	Cold easterly storm; but the grapes being ripe, no fire required.
27	60	80	60	
28	62	90	64	Warm again. House well aired now, both sides and top, leaving the sashes open late in the afternoon, in order to color the fruit well and ripen the wood, previous to bringing in the plants for the winter.
29	61	91	67	
30	59	93	64	
31	60	91	60	All the fruit in the house is now ripe, with the exception of the Esperione and Black Prince. The last is late, and has the valuable property of hanging very late.

From this date, the diary was discontinued, as the temperature was of no importance merely to ripen the wood. Abundance of air is all that is now required till the vines are pruned in December.

From the 23d of August, the grapes were gradually cut until the 1st of November, when the last of Wilmot's Black

Hamburgh were taken off. Besides the noble appearance of this new grape, it is remarkable for hanging late on the vine. The number of vines in the conservatory is nineteen, embracing ten kinds, which we have arranged about in the order of their ripening:—

1. Macready's Early White,	. . .	Aug. 1,
2. White Muscadine,	. . .	" 5,
3. Pitmaston White Cluster,	. . .	" 8,
4. Muscat Blanc Hatif,	. . .	" 10,
5. White Frontignan,	. . .	" 15,
6. Grizzly Frontignan,	. . .	" 20,
7. Black Hamburgh,	. . .	" 20,
8. Black Prince,	. . .	" 25,
9. Wilmot's Black Hamburgh,	. . .	" 25,
10. Esperione,	. . .	" 30.

To this list, many others may be added, when a variety of kinds is wanted. Our selection was principally made for the purpose of proving the kinds we have enumerated. The Muscat of Alexandria should be one of the number in a choice collection, giving it the warmest situation in the house. We have already inarched one of the duplicate vines in order to have so splendid a variety. Other new sorts have also been recently introduced at each end of the conservatory, and as soon as we prove them, we shall give an account of their merits.

Trusting that our diary will be the best guide to the amateur in the treatment of the grape vine in the greenhouse or conservatory, we shall conclude our article with a few observations on thinning the grapes, and pruning the vines.

THINNING THE BERRIES.

This is an operation which is generally altogether too carelessly done. Our attention was first drawn to this subject after reading a small treatise upon the vine by Mr. Roberts, one of the best modern cultivators of the grape in England. The ordinary mode of thinning grapes is to cut them out here and there in sufficient quantities to allow the swelling up of the remaining berries, regardless of the true form of the bunch.

We cannot do better than to quote Mr. Roberts's own words detailing his practice:—

“The time of thinning I recommend, is when the berries are well set, or attain the size of No. 2, or 3, shot, beginning at the bottom of the bunch, leaving the leading berry if possible, and according to the kind of grape, having care to thin judiciously, as there is great difference between the Cannon Hall Muscat and Frontignacs as to size. As you proceed thinning upwards on the bunch, say, for an inch or two, more or less, from the bottom, you find the peduncles, or footstalks, or what more technical term you may apply to them, to consist of three berries (the leading one, and one on each side), my practice is to leave the lead or centre berry, taking off the other two. As you approach higher up the bunch, or approaching the middle part, such sorts as the Hamburgs form a sort of secondary shoulders, and upon the sides of these you will find them set on in threes; proceed to thin, as for the bottom, leaving the leading berries, taking off the side ones as before, proceeding upwards to the top of the bunch to the main shoulders, suspending or raising the shoulders with strands of soft matting, and thinning the same as before mentioned, taking care to remove all inside berries, as they scarce ever color well, and if the grapes have to hang long on the vine, they contribute to mouldiness in damp weather. The above system of thinning leaves a bunch equally balanced, each berry acting its own part, and not robbing another, will be found to assume a strong bold footstalk, and be regular as to size in every part of the bunch.”

If a bunch of grapes is carefully examined, it will be seen that Mr. Roberts has adopted the only proper mode of thinning,—a mode which keeps the peculiar form as well as the size of the cluster, while, at the same time, they are more thoroughly thinned than in the ordinary way, as the central berries, which often do not color, and frequently rot before the clusters are ripe, are all removed, and room allowed for the others to swell up. In performing the operation, care should be taken not to injure the berries. They should be handled as little as possible, and if the hands of the operator are moist, from great perspiration, he should wear a glove, or,

in the large shouldered kinds, a small stick may be made use of to lift the shoulder up so as to cut out the inner berries.

THINNING THE BUNCHES.

This is a matter of much importance to the future health and well doing of the vines. On no account overbear young vines. There is no rule by which to be governed, as some vines are stronger than others, and something depends on the border. It may be safe to say that the spurs should not be nearer than one foot apart, and that each spur should not be allowed to mature but *one* bunch : they often show three, and amateurs are too apt to leave two or more on. Experience is the only sure guide ; but it is better to have too small a crop than too large a one. The bunches should be cut out as soon as the berries are sufficiently swelled to see which are the best shape. Our vines matured and colored well, about twenty clusters each, averaging one pound to the bunch.

PRUNING.

At the end of the fourth season, the vines will have reached the top of the house, and the future pruning will be merely to secure a good spur every year ; for we premise that the spur system will be adopted, as it has been with us. Some cultivators cut the old spur clean out : this is Mr. Russell's plan. Our mode is to cut back to the first or second eye,—generally the second, as it is larger and fuller than the first, but always select a prominent one, even if the third. This eye will produce the fruit ; but, as the spur which it forms must be cut out after it has borne, provision should be made for one to take its place : this is done by selecting one of the shoots which spring from the numerous buds at the base, at the time of disbudding, and tying it in to the trellis, stopping it, and otherwise managing it during the year in the same way as the fruit-bearing ones. At the autumn pruning, the old spur is cut off close to the main stem, thus leaving it straight and clean. If this plan is not adopted, the old spurs would become crooked and unsightly, and, in a short time, extend far beyond the trellis. The same practice is to be followed every year, always bringing up a *new spur* to take

the place of the old one, and always pruning off to a *good round plump eye*. No system can be more simple, and we are sure none more successful in securing a good crop of grapes.

ART. IV. *Root-Grafting Apple Trees.* By a FLUSHING PROPAGATOR.

ALLOW me to give to the public, through your valuable journal, some account of the quickest and the easiest mode of raising apple trees by root-grafting, as I am desirous of encouraging young nurserymen and propagators in the raising of apple trees.

1st. In the fall, all the seedling apple stocks intended for grafting should be carefully taken up, and placed in a heap in a cellar, and then the roots taken off and carefully preserved by mixing them by sand: all the scions intended for use should be cut before the frosty weather sets in, and carefully placed in sand or earth. Grafting may be commenced as early as convenient; it will not matter if you begin as early as November, and work at it through the winter till March, provided the roots, after being grafted, are heeled into boxes, and placed in the cellar till spring.

2d. All the roots, as you want them, should be washed, and then cut into pieces about four inches long or less, according to their length, and placed regularly on a table or bench, and the scions cut about three inches long, and placed in a heap near at hand; and then begin to graft. The system which I have always tried, and which succeeded best, is tongue-grafting, making a nice fit with the barks, and then bind slightly with muslin strings. These strings are made by mixing six ounces of Burgundy pitch, six do. of tallow, three do. of beeswax. These should be melted, and then put on to the muslin with a brush. It may then be cut into strips nine inches long, and half an inch in breadth. This is better than matting, as it does not require to be cut off. The boxes should be made twelve inches deep, two feet in width, and three feet in length, and filled with fine sifted mould or sand.

Trees grafted by this system are the best, grow very thrifty,

and are generally fit for sale in two years, if placed in good soil. A man accustomed to grafting can do from nine to twelve hundred a day very easily, and tie his own strings. Weak growing kinds generally grow stout and remarkably straight by this plan, and as it can be done in the winter, when nothing else of consequence can be done, there is a great saving of time.

In the spring, the boxes should be taken out of the cellar, and placed in some frames, pits, or the greenhouse, to start them into growth : or, if none of these are at hand, place them out of doors in a warm situation, as it is necessary to start them two or three inches before planting out ; they will not be injured if you do not plant them out till the middle of May. Such has been my practice of root-grafting, and, if properly done, it will never fail to succeed.

Flushing, L. I., June, 1847.

ART. V. *On the Propagation of Stove and Greenhouse Exotics : in a Series of Letters.* By JAMES KENNEDY, Gardener to S. T. JONES, Staten Island, New York.

LETTER III. *Propagation by Offsets.*

THIS is the mode by which bulbous and tuberous rooted plants are propagated. They are, however, sometimes increased by seed, but being so much longer than offsets in reaching a flowering state occasions this mode to be but seldom resorted to.

There are some kinds, however, from which I would prefer propagation by seed. Of these, the amaryllis, of which there are many varieties. I have found hybrids to be much preferable, as they often surpass the originals in beauty, and invariably flower more freely under good management.

In a situation I had the honor of filling as head gardener, in England, about eight miles from London, I succeeded in obtaining some beautiful hybrids by transferring the pollen from *Amaryllis Johnsonii* to *A. reticulata*, from *reticulata* to *vittata*, from *fulgida* to *vittata*, from *fulgida* to *Johnsonii*, and

from *Johnsonii* to *equéstris*,—the seed, as soon as ripe, should be collected, sown in pots, thoroughly drained, and placed in a hotbed, where they should be regularly shaded, when necessary, and watered sparingly. Under this treatment, they will vegetate quickly, and, when two leaves are produced, they should be potted off separately into thumb-pots, well drained, as above remarked.

Care must be taken not to pot them deep, but to have the young bulbs level with the surface of the mould, and, when potted, give as much water as will reach the bottom of the soil. They should then be placed in the hotbed for a few days, and regularly shaded from the sun. When the bulbs recede from the surface, they should have a shift into pots a size larger, and so on during the summer, until they are thoroughly rooted. By this treatment, many of them will flower abundantly the following spring. I should have mentioned that they require regular supplies of water, but not too much. The following compost I have found exactly to suit:—Three parts light turfy loam, two parts white sharp sand, and one part turfy peat; along with which treatment, an occasional watering with clear liquid manure would not, by any means, do injury.

The bulbous genera generally, such as the *Gladiolus*, *Moræa*, *Ixia*, *Antholyza*, &c. &c. should, when done flowering, be allowed to dry till the following October. This is the time for increasing by offsets, as then they are in a dormant state, and will not receive any injury in separating them from the parent. Nor will the parent's flowering principle receive any check for the coming season. Small pots thoroughly drained, and a compost composed of equal parts rich mellow loam, peat earth, leaf mould, and sand, with the addition of a little cow manure, will be found exactly suitable. After potting, let them be placed in a cool frame, when the only attention required is protection from heavy rain and frosts. No moisture should be given further than the soil in which they are potted furnishes, until the pots are full of roots, when they should be shifted into pots a size larger, using the compost above directed. They should then be taken into the greenhouse, where many of the largest of them will flower if kept regularly watered.

Staten Island, N. Y., June, 1847.

ART. VI. *Floricultural and Botanical Notices of New and Beautiful Plants figured in Foreign Periodicals ; with Descriptions of those recently introduced to, or originated in, American Gardens.*

Achimenes pätens.—This new and beautiful species, which has been figured in the *Journal* of the London Horticultural Society, and pronounced one of the most beautiful of all that have yet been introduced, is now finely in flower in our collection. It is a fine species, having a compact and neat habit, with small, deep-green, shining foliage, and flowers of the richest violet hue, about the size of *A. grandiflora*, and fringed at the edge of the corolla.

Platycodon grandiflorum—a most beautiful campanulaceous plant—is now coming into flower. It is represented as the most showy of all the campanulas, to which genus it has been stated to belong, under the name of *C. grandiflorum*.

Hydrangea japonica has been one of the most popular and generally admired plants in our collection. Our engraving, at p. 123, gives a fine representation of its habit of growth and bloom. Its great attraction consists in the contrast between the outer flowers and the inner ones, the former being large and white, while the latter are small and of a deep blue. It is of the simplest cultivation, and must become an indispensable addition to every collection of plants.

10. DAPHNE FORTU'NI *Lindl.* Mr. Fortune's Daphne, (*Ericaceæ*).

A half hardy shrub ; growing two to three feet high ; with lilac blossoms ; appearing in spring ; a native of China ; increased by cuttings and grafting ; cultivated in peat and loam. *Journal of Hort. Soc.* Vol. II. p. 31.

This "charming shrub" is one of Mr. Fortune's discoveries in China, where it was found growing in a nursery garden near Shanghai, in the winter of 1843. Being deciduous, it was then leafless, but, as it was taken to the south of China, to be shipped with the other plants, the warmth forced it into bloom, and it proved to be a fine shrub. The next spring, Mr. Fortune found it growing wild on the hills in the province of Chekiang, where it forms a dwarf shrub two to three feet high. In March and April, the flower-buds expand, and then

the whole of the hill sides are tinged with its beautiful lilac colored blossoms, and have a very gay appearance. It flowered in England for the first time, in the spring of 1846, and, as yet, it is extremely rare. Mr. Fortune states that it grows freely in a loamy, well-drained soil, and that it is readily increased by cuttings. The Chinese name is *Nu-lan-ee*, and the bark, like the mezereum, is acrid and poisonous. In England, it has been treated as a half-hardy shrub, but as it is found growing where the thermometer falls to within a few degrees of zero, it may prove hardy in our dry and cool winters. Mr. Fortune remarks that, whether hardy or not, "it will always be a favorite amongst spring flowers in the greenhouse, where it richly merits a place in every collection. (*Hort. Soc. Journal*, 1847).

11. *AZA'LEA OBTU'SA* Lindl. Obtuse-leaved azalea. (*Ericaceæ*).

A half-hardy shrub; growing two to three feet high; with blush-colored flowers; appearing in spring; a native of China; increased by cuttings; cultivated in peat and loam. *Journal of Hort. Soc.* Vol. II. p. 127.

"A distinct species" of the azalea, which Mr. Fortune found growing on the sides of the green tea hills in the province of Chekiang, and also on some of the islands of the Chusan Archipelago, where it is called the "silver silk flower," by the northern Chinese. There are two varieties, both of which have been introduced, one with flowers of a rich white color; the other pink, and both are beautifully dotted with dark spots on the under petals. The corolla in form is nearly round, and not unlike *Rhododéndrum chamæcistus*, or a finely-shaped pelargonium, in appearance. Its flowers are produced in great profusion in the months of April and May. The habit of the plant is compact and neat, and it is altogether a fine addition to this beautiful family. It is increased like other azaleas, and grown in similar soil. (*Hort. Soc. Journal*, 1847).

12. *CAME'LLIA JAPÓ'NICA* var. Comte de Paris. The Comte de Paris's Camellia, (*Ternstro miæcæ*).

A new and beautiful variety of the camellia, which was obtained from a plant of the Duchesse d'Orleans in the collection of M. Van Ghiersdale of Ghent. A single branch having sported in color, it was inarched or grafted on a good stock,

and the sport thus retained. It differs from the Duchesse d'Orleans, in having the ground color rose striped with red, while the parent is white striped with rose. The flower is finely imbricated and perfect, and the variety must rank as one of the finest which has been produced. (*Flore des Serres et des Jardins de L'Europe*, 1846).

13. TORE`NIA ASIA`TICA L. Asiatic Torenia, (*Schrophulariaceæ*).

An annual plant; growing two feet high; with blue and purple flowers; a native of India; increased by seeds; cultivated in any good soil. *Flore des Serres*, &c., Vol. 11. pl. 157. 1846.

A new and most beautiful annual, cultivated in a similar manner to the petunia, growing about two feet high, and producing beautiful sky blue flowers, finely marked with a large spot of deep purple on each petal. The plant is of a diffuse habit, with ovate leaves, and terminated with numerous flowers. It is easily raised from seed, and is a great acquisition to our gardens. (*Flore des Serres*, &c.)

14. F`U`NKIA GRANDIFLO`RA Sieb. & Zucc. Large-flowered Funkia. (*Liliacæ*).

A greenhouse plant; growing two feet high; with white flowers; appearing in summer; a native of Japan; increased by division of the root; cultivated in any good soil. *Flore des Serres*, &c., vol. II. pl. 158. 1846.

This is stated to be one of the most splendid plants introduced by Siebold from Japan. It flowered for the first time in Belgium, in the garden of the Horticultural Society des Pays Bas, in July, 1846. Its general appearance is the same as the other species, but it throws up a fine stem, which is clothed with flowers of the purest white. Its cultivation is the same as the other species. It will probably stand in the open ground as well as the *F. japonica*, but the situation should be well drained. It is readily increased by division of the roots. (*Flore des Serres*, &c., 1846).

15. RIBES GORDONIA`NUM, (Garden hybrid.) Mr. Gordon's Currant, (*Ribesiacæ*).

A hardy shrub; growing two feet high; with salmon-colored flowers; appearing in June; a garden hybrid; increased by layers. *Flore des Serres*, &c. Vol. II pl. 165. 1847.

A new and beautiful flowering currant produced in Belgium, between the *R. sanguineum* and *aureum*; the flowers are produced in the same form as the first named, but the calyx is red, and the corolla yellow; it is probably as hardy as the *aureum*, and will be a splendid shrub for our gardens. (*Flore des Serres*, &c., Nov. 1846).

MISCELLANEOUS INTELLIGENCE.

ART. I. *General Notices.*

Root-pruning, and the management of the Pear Tree.—In our last number we copied an article from the *Gardeners' Chronicle*, (p. 280) on Root-pruning pear trees, and particularly called the attention of all fruit cultivators to the subject. The article was prepared for our May number, but was crowded out for want of room. In a subsequent number of the *Chronicle*, some writer, who signed himself a "Constant Reader," proposed a number of questions to the writer of the article, and doubted the possibility of raising the pear to perfection on any other stock than the pear. He states that he has been for years interested in the proper stocks for trees, and then shows his ignorance by asking, "how much the fruit partakes of the flavor of the quince"! Mr. Rivers himself took up his pen in reply, and his remarks must be satisfactory to all, that the quince stock and root-pruning are the *materiel* to produce pears in abundance and fine perfection.—*Ed.*

I feel that it is a duty I owe to your correspondents and the gardening world generally, to notice the letter of a "Constant Reader," in No. 21. It will, perhaps, be the better mode to take his questions and remarks *seriatim*. He says, "I have been for years much interested in the proper stock for fruit trees; my impression is, that the pear cannot be produced in its highest state of perfection (whatever the mode of treatment or the stock used) on any other stock save the pear stock." To this I can answer most positively that the very finest pears I have ever seen or tasted have been produced on pear trees grafted on the quince. I use no stocks but the pear and the quince; the former for orchard trees, or for those who prefer the pear stock; the latter solely for garden trees, principally to form prolific pyramidal trees, for which they are unrivalled both in beauty and fertility. I fear "Constant Reader" has also been constant to his home: has he never seen or tasted the magnificent pears in some of the fruit gardens near Paris? has he never seen the pear trees in the Potagerie at Versailles? or tasted the fruit from them? (Mind, trees there are nearly all grafted on the quince.) If he has not done this, he has yet something to see and taste. I repeat, that I use only the pear and the quince as stocks, and I find the pear stock submit as kindly to root-pruning (or even more so) as the quince. I can illustrate the good effects of root-pruning very forcibly in my specimen orchard, and at any time your correspondent may see and believe; however, I must tell my tale, and then proceed.

About thirty years ago, my father planted some rows of pear trees in a portion of the nursery, then a recent purchase; these were all common sorts of pears, standards, grafted as usual on the pear stock. They grew most luxuriantly for some eight or ten years, when their leaves began to change from their usually vivid green to a light yellow; in a year or two, this yellow tint increased till their foliage was really of a bright straw color;

the trees soon after all died, so that, at the end of fifteen years, not a tree was left on this portion of the nursery, the subsoil of which, I must add, is hard white clay, full of chalk stones; this peculiar soil occupies a very small space, not more than a quarter of an acre, as the neighboring soil is a tender, sandy loam.

When I came to years of thinking, the untimely fate of these pear trees was often present to my mind, for I remembered so vividly with what pleasure I had filled my pockets from them. I at that time also found that, to be able to know any thing about pears, I must have a specimen tree of every kind that I cultivated. No other but this "pestilent spot" of earth happened to be just the place most eligible as a site for my specimen ground. What could I do? I did not then think of root-pruning, but I thought that I should find some way or other to avert the untimely fate of my trees; I therefore planted them in the usual way, digging the holes about two feet in depth, and mixing some manure and compost with the earth taken from the holes, but leaving the hard clayey subsoil below, to the depth of two feet, untouched. I watched my trees narrowly after four or five years, as I then expected to see traces of the effects of the clay soil upon them. I think some eight years must have passed and gone before their foliage turned yellow. My first thought said, remove them to a different site and soil; second thought, take them up and give them some fresh compost, they will last a few years, and you can then find a good place for them; third thought, if you can renovate them for a few years by taking them up and replanting, why not do this periodically, so as to keep your trees healthy; the site is good,—make the soil equally so; fourth thought, what occasion is there to remove the tree? cut its principal roots, leaving those that are fibrous; and so I became a pruner of roots. Now for effects, and "A Constant Reader" must recollect that any day the Eastern Counties rail will carry him either to Harlow or Sawbridgeworth, each equally convenient, for a few shillings, to see with his own eyes all that I state.

In my specimen ground are several standard pear trees from eight to ten years old; these terminate long rows of standards, left to grow as nature dictates, both root and branch, except occasional thinning of their heads. These, it must be recollected, are among my root-pruned specimen trees, a great number of which are from twelve to fifteen years old. They have had their roots pruned three times within these eight years, the last time in December, 1844. They are now full of health, and foliage, and fruit,—in fact, all that I can wish them to be. The standard trees, with roots unpruned, have their leaves yellow, and are, I fear, hastening to death.

I now proceed to give a list of such sorts of pears that on my soil are decidedly higher in flavor when grafted on the quince, and not, (as your correspondent almost ludicrously says) "partaking of the flavor of the quince." Pray, have you or Mr. Thompson ever ate a quince-flavored pear? that is, a pear having such a flavor from being grafted on the quince, (as I well know there are many pears with a very odd flavor.) Does the Ribstone Pippin taste of the Crab because it is grafted upon it? Does the peach acquire the flavor of the Mussel plum because it is budded upon it? Does the Green Gage ever taste sour and austere? and yet it is almost invariably

grafted upon the common wild plum, which is uneatable, from its peculiar astringent acidity. I do hope, for the credit of your paper, that your correspondent is not your "Constant Reader." To return to my list, I must first premise that every sort of pear is, as far as my experience at present goes, improved by being worked on the quince; but the following, in list 1, are remarkable for growing freely on the quince in most soils, without being double worked, bearing large fruit of the highest flavor:—

LIST I.

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| 1. Beurré d'Amanlis,* | 18. Forelle, or Trout pear, |
| 2. Beurré Ananas, | 19. Fortunée, (Parmentier) |
| 3. Beurré d'Aremberg, | 20. Franc Real, Summer, |
| 4. Beurré de Capiaumont, | 21. Glout Morceau, |
| 5. Beurré Diel, | 22. Gratioli of Jersey, |
| 6. Beurré Easter, | 23. Jargonelle, |
| 7. Bon Chrétien, Williams's, | 24. King Edward's, |
| 8. Chaumontelle, | 25. Louise Bonne of Jersey, |
| 9. Citron des Carmes, | 26. Napoleon, |
| 10. Colmar, | 27. Passe Colmar, |
| 11. Colmar d'Aremberg, | 28. Poire Chenille, |
| 12. Compte de Lamy, | 29. Princess Royal, (Groom) |
| 13. Crassane, | 30. Saint Denis, |
| 14. Doyenné Gris, | 31. St. Germain, |
| 15. Doyenné, white, | 32. Van Mons Leon le Clerc, |
| 16. Duchesse d'Angouleme, | 33. Vicar of Winkfield, |
| 17. Duchesse d'Orleans, | 34. Wilhelmina. |

There are many other sorts that I feel almost assured will do equally well on the quince stock as the above. I forbear to add them till I am fully convinced by proving them. No. 3: Of this I ate my best specimens about the middle of last April; they were vinous, juicy, and delicious, from plants on the quince. Specimens from plants on the pear stock kept only till the end of February.

No. 5. This pear seldom ripens well from trees on the pear stock; on the quince, the fruit are larger, more handsome, of perfect flavor, and they invariably ripen well.

No. 6. On the pear stock here; (it must be borne in mind that I am always referring to trees in the open quarters—not wall trees;) this is a most crab-like pear, bearing but very seldom, and never ripening; on the quince it bears well, is of high flavor, and always ripens in April and May; it is, however, inclined to be gritty at the core, and this at present is the only pear I have found to be so from the quince stock.

No. 19. This is a perfect crab from trees on the pear stock; from the quince it is very melting and juicy, and really a good, small, late pear. I ate my last and only specimen this day, May 26.

* D'Amanlis, according to most French authors; d'Amalis, according to Horticultural Catalogue of Fruits.

No. 21. Grows freely here on the pear stock, and blooms freely, yet seldom bears any clear fruit; they are generally full of spots, and often do not ripen at all kindly. On the quince stock it bears clear handsome fruit, which invariably ripen, and are very highly flavored.

No. 23. On my finest soil here, a tender loam six feet in depth, subsoil sand, this sort always cankers, and very seldom produces any good fruit; in short, it is a very shy bearer when on the pear stock; on the quince it grows freely, and bears most abundantly; fruit, fine and clear, and of high flavor.

No. 25. This, of all the pears I know, is most benefited by working on the quince. My specimen tree, on a pear stock now twelve years old, has scarcely borne a dozen good clear fruit, and some standards of nearly twenty years' growth canker at the tips of their shoots, and their fruit is, in most seasons, spotted and misshapen. On the quince, how different! I have trees, from three to five years old, full of fruit, and these have hitherto, every season, been large, remarkably high-colored, beautiful, and of the highest flavor. "Constant Reader" will, I think, see that I have some confidence in the quince stock, when I state that I have a young plantation of this variety, on the quince, of 1500 trees, which I hope to make up in the autumn to 3000; these are to bear to supply the London market. At the expense of being thought a little egotistical, I must tell him that I am not only a pear tree grower, but also a pear grower; Providence has kindly blessed me with fifty acres of good land, on which roses and pears, and I know not what, seem to be "very happy:" this is a favorite phrase with one of our best gardeners, who, when he sees a tree in fine order, or one the contrary, designates them "happy and unhappy trees."

No. 27 bears here, on the pear stock, a tremendous quantity of fruit; these are often inclined to speck, and they seldom ripen well in the fruit-room. On the quince stock the fruit are clear, always ripen well, and are of the highest flavor. I have, as above, given my remarks on a few well known and preferable sorts; they may be applied, with slight modifications, to all the varieties in List I.

LIST II.

Pears that require double working before they will succeed on the quince; this is merely grafting or budding some free-growing sort of pear on the quince, and then re-grafting the graft, the following season, with the "refractory sort," to use the expression of your friend "Dodman."

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| 1. Bergamot, Autumn, | 12. Jean de Witte, |
| 2. Bergamot, Gansell's, | 13. Marie Louise, |
| 3. Beurré Bosc, | 14. Monarch, Knight's, |
| 4. Beurré Rance, | 15. Nelis, Winter, |
| 5. Broom Park, | 16. Ne Plus Meuris, |
| 6. Brougham, | 17. Saint Marc, |
| 7. Crassane, Althorp, | 18. Seekel, |
| 8. Crassane, Winter, | 19. Suffolk Thorn, |
| 9. Dunmore, | 20. Thompson's, |
| 10. Hacon's Incomparable, | 21. Urbaniste. |
| 11. Inconnue, Van Mons, 175, | |

No. 3 is exceedingly "refractory," and I am not quite sure that it will live and flourish for any lengthened period, although double worked on very thrifty stocks. In some soils, this fine pear does not ripen well on standards; it is therefore very desirable to get it to do well on the quince, as it will, I have no doubt, bear when the tree is young; at present, it is, while young, a shy bearer.

No. 4. My standards of this sort, on the pear stock, too often bear misshapen fruit, inclined to speck and crack, and, in some seasons, not ripening well on the quince. Its fruit is clear, fine, and remarkably high-flavored.

No. 11. I notice this pear, as I remarked, a short time since, one of your correspondents inquired of you its origin, which you could not give. I received it, with several other sorts, from M. Van Mons, I think about eighteen years ago; I understood him at the time that they were seedlings, not then named; this is a very hardy and excellent late pear, about the size of *Beurré d'Arenberg*, but larger, first rate in quality as a melting pear, and fit for the table from February to April; the sorts then received were placed in the nursery catalogue as "*Inconnue Van Mons*," and numbered. They all still stand under the same name, with different numbers attached.

The sorts I use to form a stock on the quince for re-grafting are *Beurré d'Amanlis*, *Jargonelle d'Automne*, *Fondante de Brest*. These all form the most luxuriant stocks. Grafting on the quince often fails. I have known eighteen out of twenty to succeed in some seasons, and the same number to fail in others. It is an uncertain mode; budding is preferable. For double working you may always graft, that is, if you prefer it, or if your buds fail. Grafts succeed perfectly on the shoot of the pear produced from the quince stock the preceding season. I earth up my trees, to encourage them to root close up to the junction of the graft with the stock, but not with the view of making the graft root. I wish to avoid this, as the effect of the quince stock is then lost. If you wish for cultivated pears on their own roots, there is much time and labor lost by this mode; for any variety of pear may be layered, and good plants obtained, in about two seasons.

And now for the last paragraph of your "constant" friend. Can we always find "soil and locality in every respect suitable" to the growth of foreign varieties of pears? Is not our method of placing them against walls and espalier rails, &c. "unnatural?" The peach tree, which, in the United States, in a natural state, bears such enormous crops, bears here at least equally fine fruit, but in most "unnatural" places. My root-pruned pear trees, many of them, I have purposely made to contend against nature; in a soil that is naturally death to them I make them flourish. To use the oft-quoted sentence, "a man that can make a blade of grass to grow," &c. is a benefactor to his race, and if I can, by precept and example, enable the numerous occupiers of small gardens to grow pears and apples for their dessert nine months in the year, and plums and cherries during the summer, shall I not also be a benefactor in a humble way? I hope so.

Allow me to advise your correspondent to visit the Horticultural Gardens at Chiswick; he may there see pear trees of some twenty-five years' growth on the quince stock, with roots protruding from the stock close to its junc-

tion with the graft. Pictures of health and fertility, they have borne many bushels of fruit, and yet I have never heard the Fellows of the Horticultural Society complain that they tasted like quinces. Some fine trees of about the same age, on the quince, are also in the border. These were all removed about two years since, and, of course, their roots were pruned; on them may therefore be seen the effects of root-pruning.

I will conclude with the words of "Dodman:" "A very little care and judicious selection of sorts would insure them (pears) daily, from the end of July till May." I may add, that any garden ten yards square, or even less, will, with the quince stock for pears, the Paradise stock for apples, the *Cerasus Mahaleb* as a stock for cherries, judicious root-pruning and surface culture, supply a very ample dessert of delicious fruits.—(*T. Rivers, in Gard. Chron.* p. 372.)

Propagation of Gloxinias.—These may be raised either from seeds, or by cuttings of the young shoots, or by leaves. The seeds should be sown in shallow pans of sandy soil, on a thin bed of silver sand, a little of which should afterwards be dusted over them. Place the pan in a brisk hotbed, and cover it with a bell glass until the seeds vegetate. The cuttings should be taken off when the young shoots are about three inches long; plant them in silver sand, and set them in a hotbed. Leaf propagation may be done in two ways:—1. Insert a leaf in sand, like a cutting, the base soon forms a knob, from which a bud is subsequently developed. 2. Cut the principal rib at the back of the leaf through with a knife, in several places, an inch or more apart; then press the leaf flat upon the sand, and place a few small stones on the top, near the incisions, to keep it down flat; the ribs are to be placed downwards; then cover with a bell glass, and place in a brisk heat; little knobs will be formed at the incisions, which, in due time, will put forth buds. Keep them all, while growing, in a warm, moist atmosphere, and, when their leaves are mature, allow them to become comparatively dry, in which state they may be set away in a cool frame for a month or two; after which they should be potted in fresh soil, of equal parts sandy peat and leaf-mould, set in a warm pit, and gradually watered until they are fairly started, when they must have plenty of heat, light, and water, and a little weak liquid manure once or twice a week.—(*United Gardeners' and Land-Stewards' Journal*, 1847, p. 321).

Chrysanthemums.—When the stormy and withering blasts of November have laid desolate the gems which adorn the flower-garden, the comforts of a well-managed greenhouse or conservatory begin to be valued; and, in order to render them as pleasing and delightful as the means placed within our power will allow, preparations, some time previous, are absolutely necessary, we having but few plants which bloom naturally at that period; and these, in many instances, do not receive that care and attention to which they are entitled. In no instance is that more generally observed, than in the culture of the chrysanthemum; arising, no doubt, from the vague idea, that it is difficult to grow handsome plants, on account of their straggling habits. If the following remarks are fully carried out, I have no doubt but those who hold that opinion will be induced to think other-

wise. There are various methods resorted to in propagating the chrysanthemum—viz., by offsets, layers, and cuttings; but, as I consider the latter the best method, I shall confine my remarks solely to it. From the middle to the end of May is the best season for putting in cuttings: select the points of the shoots of the current year's growth, not more than two inches long; cut them close to a joint; remove one or two of the bottom leaves; plant very thinly under hand glasses; and, if a gentle bottom heat can be conveniently applied, it will accelerate their rooting: bottom heat is not, however, absolutely necessary, as they will strike readily without it in a mixture of leaf-mould and sand; shade the glasses for a few days; and, when the cuttings have taken root and begin to grow, remove the glasses and pinch out their tops, which will cause them to push three or four shoots each; when they have grown about an inch, lift them with as good a ball as possible, and pot in large sixties, in a mixture of loam and rotten dung in equal portions; place them in a close frame, and shade a few days till they have taken with the pots, when they may be set out of doors, allowing them plenty of room to prevent their being drawn; supply them liberally with manure water. When they have grown about three inches, pinch out their tops again; this will cause them to throw out from ten to twelve shoots, and will be the means of keeping them dwarf. When they have grown about an inch, repot them in thirty-two's, or six-inch pots, in a mixture the same as previously mentioned; set them in some place out of doors, where they will be shaded for a few hours during the heat of the day, but by no means place them under the drip of trees. After that time, which will be about the middle of August, they will want nothing more than keeping the pots clear of weeds and suckers, and watering—alternately using manure or guano-water. About the beginning of October, a few of the most forward may be placed under the protection of glass at night, being fully exposed during the day, as the chrysanthemum will not suffer forcing: the others may be taken in as the weather may render necessary. I may mention that they will stand two or three degrees of frost, without sustaining any injury. By following the above directions, I have grown upwards of 200 plants in one season, varying from a foot to eighteen inches high, with from eight to twelve stems each, and from 30 to 60 full blown flowers on each plant, without a yellow leaf, and without the assistance of wooden legs. When the plants have done flowering, they may be cut down and stored away in some convenient place, where they will be sheltered from the frost. Allow them but little water till the end of April, when they may be exposed to the open air till the cuttings are wanted; and when these are taken off, the plants may be either thrown to the rubbish heap, or a few of the early flowering sorts may be planted in the shrubberies; shorten all the stems to within six inches of the pot; this will cause them to throw out more shoots, which may be again stopped; you will thus keep this naturally untidy, straggling plant, within due bounds; and, instead of being (as is often the case) tied up in a bunch, or left at random, they will be fine dwarf flowering plants without the least assistance of stakes, blooming at a period when but few flowering plants adorn the shrubberies.—(*Ib.* p. 324).

Carnations, Picotees and Pinks—their propagation.—The propagation of these plants by pipings, may now be commenced ; the following method we have found the most successful :—Make up a bed two feet in height in a shady situation—let it be composed of rotten manure, which possesses a gentle warmth ; place a one, two, or three-light box over it, according to the number of pipings you intend to plant. The compost for this purpose should consist of one part rotten turf, one part horse manure two years old, and one part loam and road sand, in equal quantities ; this should be sifted through a very fine sieve, and turned frequently in the open air to incorporate and sweeten ; after which, place a layer of it, four inches in thickness, over the bed that is prepared ; level it on the surface, and water it freely with a fine rose watering pot the night previous to planting. The glasses we use for striking are octagon shaped, and measure ten inches in diameter, five inches deep at the sides, and raised at the top two inches ; we occasionally use larger glasses, but seldom find them answer so well. In taking the pipings from the parent plants, be careful not to strip the main stem—the better way is to cut them off with a knife. We prefer the top-most shoots for piping, for two reasons ; first, they are generally of a slender growth, and will more readily strike ; secondly, if left on the plants, they are difficult to layer without breaking. It is necessary to leave five or six of the young shoots on each of the mother plants for layering ; if they are over-pruned, it is detrimental to the plants, and injurious to their future blooms. The pipings should be prepared by taking the two side leaves off at the third joint from the top, and cutting the stem through horizontally, just below it ; shorten the two leaves above it, and the piping is complete. Having prepared and carefully labelled the number of sorts you intend to plant, proceed in the following manner :—First, sprinkle a small portion of silver sand over the bed, then make an impression with the glass that you may know the distance to plant them ; fill a garden-pan with water, and place it inside the frame, that each variety may be immersed during the time of planting ; take each piping between the finger and thumb, and gently run it into the soil three quarters of an inch in depth ; the distance between each piping should be half an inch, and the same between the rows. After planting, they must be watered sufficiently to moisten the soil through ; let them be well dried before covering them over with the small glasses, or they are likely to mildew. The advantage of double glassing will be found of great benefit in cold and wet seasons.

Pinks.—These flowers will require great attention during the next three weeks: the pods must be carefully examined from day to day, and tied with bass to prevent them from bursting. We advocate the use of bass for this purpose, in preference to the India-rubber rings, or any other material. The rings are strongly recommended by some parties, but, in our opinion, they are a decided failure ; we lost from twenty to thirty blooms in one season by trying the experiment. The short round pods that are difficult to open, require the bass to be placed twice round them, and secured firmly by a double knot ; those of a better shape will do very well with a single

tie. The bass should be placed evenly round the pod just below the shoulder.—(*Ib.* p. 375).

Treatment of Azaleas.—The main stock of these will now be out of bloom ; and, after the gorgeous display which we have seen this season, I think I was not far wrong in saying a few weeks back they were likely to become very general favorites. The first thing to be done with them now will be to remove the flowers and seed-pods as quickly as possible, and get them into a house or pit where they can be properly shaded, and where a moist atmosphere can be maintained at all times. Pot such plants as require it, using plenty of sand and a little three-years' old cowdung with the peat ; but as they will do for a long time in small pots, do not overdo them. The best of my plants, which have done blooming, are now standing in a pit, under sheet glass, where they are shaded, but kept at a brisk growing temperature during the day, and syringed copiously, and shut up closely every afternoon just before the sun leaves the pit, but air is admitted again about nine o'clock. The second plants are under the shade of a late vinery, and receive just the same treatment as Vines, the fruit of which is just set : here they will remain until they have made their growth, and then they will be placed under sheet-glass to set the bloom. Prune in any straggling shoots, and endeavor to get nice, round, compact plants.—(*Ib.* p. 358).

Exposing Greenhouse Plants in Summer.—It is a common practice all over the country, to set greenhouse plants, heaths, &c., out of doors during the summer months, without any protection whatever, either to the tops or bottoms of the plants, under the vain impression that the plants will be benefited by such treatment. Plants, when fully exposed to the sun and air, after a time become so dry as to nearly make it impossible to render them moist again ; hence, the scorched and stunted looking plants which may be seen in summer. The pots of plants should always be moist : persons with common observation will have noticed that all the youngest and most tender roots of plants always extend next to the pot ; consequently, they are the most liable to injury from any sudden check, occasioned by the sun drawing all the moisture out of the pot, and, therefore, out of the soil also. It is no uncommon thing to see the soil quite dried away from the pot, and when the water is supplied, it sinks down the outside of the soil as fast as it can be poured in, and the soil inside is not wetted in the least. How can any person expect plants to grow by such unnatural treatment ? Besides, it is a great waste of time to be so frequently watering, as is very often the case ; the whole morning and evening are often spent in this way. If plants must be turned out of doors, they ought always to be plunged in some porous substance ; although, at the same time, it ought to be something that will hold moisture ; for instance, very rough peat, moss, or sawdust. I have seen sand used by some, but I consider it holds the wet too much, which is an evil almost as bad as the former. The pots should always be placed on slates, or some other material that will prevent the worms from entering, as they are great pests if once allowed to enter. They should also be shaded from the sun with some light material, and protected from heavy rains. By following the above plan, a great deal of time will

be saved in watering ; and the plants, having a more natural treatment, will present a more natural appearance.—(*Ib.* p. 307).

Cultivation of Aloysia Citriodora.—Do you possess a neglected plant of the too much neglected lemon-scented Verbena, or, as it is now called, *Aloysia citriodora*? If so, lose no time in propagating a stock of healthy plants from young shoots produced in a forcing-plant pit. When propagated, encourage luxuriance by liberally potting in coarse loamy soil and leaf-mould ; inducing compactness of growth by frequently pinching off the tops of the young shoots until the last week in May, when, having previously inured them to the external atmosphere, turn them out of their pots into spare beds in the reserve garden, the compost being open, and moderately rich, with a substratum of old mortar or rubble. If large bushy plants are desired, plant them sufficiently distant from each other, and continue stopping the growing shoots whenever they attain the length of two or three inches. In September following, re-pot them into large pots, and place them in a close cold-pit, giving scarcely any water, when they will soon become deciduous. Here they may remain until required in succession for forcing through the winter in a plant-forcing structure. Their utility, when their delightful fragrance is taken into account, need not be descanted on, inasmuch as the perfume of this odoriferous shrub is too universally appreciated to require eulogium.—(*Ib.* p. 307).

The Heartsease or Pansy.—These plants are easily propagated by cuttings or side shoots, which may be taken off them at almost any time of the year. To ensure success in striking, I should recommend the cuttings to be planted early in the spring, or late in the autumn, they will do equally well at either season. The side shoots which appear from under the ground, when sufficiently long, are the best for increase ; they strike root much earlier, and generally make the best and soundest plants. The compost for this purpose may be composed of one part turfy loam, one part light vegetable earth, and one part horse manure, two years old. It is necessary that a small portion of road-sand should be added to this compost to prevent the water from hanging too much about the necks of the plants. After planting them, water freely, whether in pots or in the open ground, and protect with hand-glasses, if requisite, but be sure to dry the cuttings before covering them over, as confined damp is very injurious to their future growth ; they must be placed in a shady situation.—(*Ib.* p. 311).

Scarlet Pelargoniums for winter flowering.—The employment of scarlet pelargoniums for decorating the greenhouse or conservatory during winter is limited, considering their fitness and appropriate beauty, when judiciously cultivated for this purpose. Having experienced considerable success in their cultivation, I am induced to state the method I have adopted, the relation of which will doubtless interest those of your readers who are engaged in the winter cultivation of this general favorite :—In August or September, strong cuttings of Giant, Scarlet, Sol, Smith's Superb, Huntsman, General Tom Thumb, &c., were propagated and potted immediately into five-inch pots to winter, their efforts of growth being repeatedly retarded by pinching off the growing shoots until March, when they received a liberal

potting in poor soil, which induced the formation of numerous "eyes," or embryo shoots. By the last week of May, these became strong shrubby plants, and were turned out into strong wicker baskets, sunk out into a bed or border, of rough turfy loam and fibrous peat soil, with a limited quantity of silver sand and leaf mould. The baskets were filled with similar compost, and distributed six feet asunder, to allow the plants to grow into large bushy specimens, which, as they advanced in size and symmetry, were frequently stopped, to render them dwarf, and as compact as possible. They were not permitted to bloom in this situation, and, in the second week of September, the baskets (which were constructed in halves, to enable me to remove them from the enclosed ball) were divided, and the entire balls potted into very large pots, admitting the addition of fresh compost and good drainage. This accomplished, they were removed to a cold pit for a fortnight, and, in the first week of October, the best specimens were placed in the greenhouse conservatory, and soon commenced blooming, continuing in great beauty until Christmas, when they were succeeded by the remainder in the dry cold pit. At that time, the specimens first introduced into the warm conservatory were pruned back moderately, and plunged in the pit of a plant forcing structure, where they grew rapidly, receiving, as before, frequent stoppings, and waterings of weak manure-water. In the first week in March, these were restored to the conservatory again, in readiness to bloom immediately, and were succeeded in the forcing structure by the secondary lot, treated similarly on being introduced there. These latter afforded plenty of cut flowers in April and May, and finally the whole were shortened back considerably, and turned out for decorative purposes in June, making a very respectable display in the flower-garden in August and September. So much for the winter treatment of this useful and very ornamental plant, which, in my estimation, may be brought to much greater perfection as a specimen pot-plant than at present it appears to have attained; and, in expectation of more valuable communications on the subject, I am mainly induced to forward the foregoing observations.—(*Ib.* p. 324.)

ART. II. *Domestic Notices.*

Weather in Pennsylvania.—We have had a good deal of rain during the past two weeks, and crops of every kind bid fair to give more than an average yield. We have had no frost this spring to injure any thing, and the foliage of the forest is exceedingly rich, and fruit of every kind very abundant; apples, perhaps, will not be so abundant as they were last season, owing to the trees having been somewhat exhausted.—*A. Huidkoper, Mcadville, Pa. June, 1847.*

Cultivating the Peach Tree.—Have you ever experimented any in growing peach trees from cuttings? I have been in the habit of growing tomato plants separately, in boxes about six inches square, until they were in

bloom. The boxes are very loosely put together with small nails, and, when taken carefully apart, the very numerous roots of the tomato keep the earth together, and the whole can be put in the ground without the tomato being in the least retarded by transplanting. This spring, to support the plants which I had started in this way in my grapery, I used some trimmings of a peach tree, and, on setting out the tomatoes a few days since, I found that not only each peach twig was in leaf, but that most of them had thrown out small roots an inch or two in length. The earth I used was well decayed chip manure and garden mould. As this is apparently an easy way of multiplying select peach trees without the trouble of budding, I make the suggestion (perhaps not a new one) that, if you think it worth while, you may make the experiment yourselves.—*Yours, &c., A. Huidekoper, Meadville, Pa., June, 1847.*

New Horticultural Society.—A short time ago, p. 188, we noticed the formation of several new Horticultural Associations. Since then, we have been favored with accounts of several additional ones in various parts of the country as follows:—The Detroit Horticultural Society, Detroit, Mich.; the Albany Horticultural Society, Albany, N. Y.; and the Montreal Horticultural Society in Canada. The constitutions, by-laws, and lists of officers of each have been sent us by some of our correspondents or subscribers. We are happy to notice this increased evidence of the spread of Horticultural taste.—*Ed.*

The American White Winter Calville Apple.—In your March number, you have something about the White Calville apple. I have an *old* tree of that name, and the fruit is pretty well described in that article. I think, with our other fine apples, it came from France. The tree is nearly dead, and is the only one I know of.—*I am yours, respectfully, John Frothingham, Montreal, April, 1847.*

Reid's Seedling Pear.—With your remarks in the Magazine about the name of Reid's Seedling, which I now consider the correct one, I am much pleased; they harmonize entirely with my views. I perceive by Mr. Allen's article, in the Horticulturist for May, that Mr. Reid sowed the seed from which the tree sprung. I hope you will insist upon this name, as it is full time that the propensity to rename old things and to change the names of new ones, had a check given to it; it is becoming exceedingly annoying as well as expensive to those who are not constantly alive to all these manœuvres and deceptions now practising in the horticultural world, and it is the duty of the editors of horticultural magazines, who are the recognized guardians of horticulturists, to protect them and detect these deceptions. A case in point occurred here last autumn. A nurseryman purchased from another a number of strawberry plants; from some he lost the labels—one of those proved to be of superior character, probably well known to many, but took not at all as he is a new beginner. He immediately dubbed it the "Excelsior strawberry," and advertised it as a new variety, in the Cultivator of last September or October. This is downright cheating, and is but one of many cases that are occurring every day. It has a very injurious tendency, as many persons, who are not well informed,

are deterred from purchasing any new things from positive fear of deception.—*Yours, W., June, 1847.*

ART. III. *Obituary.*

DEATH OF THE HON. AND REV. W. HERBERT.—The *Gard. Chronicle*, of June 5th, announces the death of the Dean of Manchester, which took place suddenly, at his house in Hereford street, at 1 o'clock on Friday, the 28th of May, in the 69th year of his age.

The *Chronicle* truly states that his death "is the greatest loss which horticulture has sustained since the death of Mr. Andrew Knight, not merely on account of his skill as an experienced cultivator, but because of his scientific attainments and profound knowledge of the laws of hybridizing, which had been so fully elucidated by himself in the experience of a long life, which he had applied with admirable judgment, and to which we must continue to look for years to come as the surest aid to the improvement of the races of plants. Fortunately for the world, his latest views on the subject have been preserved in the two valuable papers 'Upon Hybridization among Vegetables,' which have been published in the *Journal of the Horticultural Society*, and which constitute a rich mine of valuable facts and not less valuable reasoning."

Mr. Herbert was the originator of quite a number of new plants, and among them some fine camellias. The *Chronicle* thus closes a notice of his death:—

"The Dean of Manchester was early and constantly attached to natural history. In youth he was an indomitable pedestrian and an excellent shot, and made his gun subservient to the study of ornithology, as well as his pencil and paint-brush, with which he was tolerably expert. The edition of White's *Selborne*, published by Professor Rennie, in 1832, contains many closely printed pages of his ornithological observations; and the title page gives a spirited specimen of his draughtsmanship. In more domestic periods of life, the science of botany, and the art of horticulture, (two very different things) were pursued by him with great success. The *Botanical Magazine and Register* received from him frequent communications. His greatest work in this line, 'The *Amaryllidaceæ*,' accompanied with a treatise on hybrid intermixtures, was published in the year 1837. And such leisure as remained to him, in the succeeding years of connection with a great manufacturing city, and of declining strength, was employed on the *Iridaceæ*, which, had longer time or better health been granted him, would have been as complete as the former."

ART. IV. *Massachusetts Horticultural Society.*

Saturday, June 5th, 1847.—An adjourned meeting of the Society was held to-day—the President in the chair.

The following members were elected:—Albert Bullard, T. H. Foster, John J. Adams, and George T. Bigelow, Boston.

[In our account of the meeting May 1, we omitted to give the names of all the members which were elected at that time. They are as follows:—Adolphus Davis, T. T. Bouvé, Edmund Quincy, Hez. S. Chase, Samuel May, and Lewis Decker, Boston; H. P. Fairbanks, Charlestown; George Quant and John Thomas, Brookline; E. S. Furber and E. W. Sampson, Dedham; Thos. Sinclair, Brighton; Otis Arthur Gay, Hingham; Ralph Crooker and C. E. Grant, Roxbury.]

It was *Voted*, that the Chairman of the Committee of Publication be requested and authorized to have the seal of the Society altered and enlarged, by causing the words “Mass. Horticultural Society,” and the date of its incorporation annexed thereto.

Voted, That the several committees be instructed to have placards prepared, requesting contributors to furnish to the chairman a list of their contributions.

Adjourned for two weeks—to June 19th.

Exhibited.—**FLOWERS**: From the President of the Society, a variety of cut flowers and plants, viz:—Cactuses in var.; two new spotted seedling calceolarias, and a variety of others; camellias; fuchsias, var. *Salterii* major, Paragon, Bowdin, Brookmanii, Chauverii, and robusta; six or eight varieties of elegant cinerarias; petunias, Eliza, Contributor, Tunandra, and a fine plant of Hebe, well grown and in perfection; six varieties of lilacs, viz., Duchesse d’Orleans, De Nemours, Charles X, Prince Nolger, double purple, and a dark red. From Breck & Co., a fine bunch of *Wistaria Consequana*, with more than fifty racemes of its elegant flowers drooping in the most graceful manner. The plant from which this was taken was grown in the open air without the least protection, and made a growth last season of twenty-two feet in one direction; also, a variety of cut flowers, pæonies, &c. From Messrs. Winship, a great variety of cut flowers, including many sorts of flowering shrubs, pæonies, honeysuckles, &c. Bouquets, plants and cut flowers, from Messrs. Hovey & Co., W. Quant, A. Aspinwall, P. Barnes, E. Wight, A. Bowditch, J. L. L. F. Warren, T. Needham, W. Kenrick, W. B. Richards, J. Hovey, J. Thomas, E. M. Richards, Jas. Nugent, J. M. Mandell.

Award of Premiums:—

PLANTS IN POTS.—For the best six pot plants, to Wm. Quant, \$2.

For the second best six, to J. Thomas, \$1.

BOUQUETS, DESIGNS, &c.—For the best large bouquet, to William Quant, \$2.

For the second best large bouquet, to Messrs. Winship, \$1.

For the best six hand bouquets, to A. Bowditch, \$2.

For the second best six hand bouquets, to J. L. L. F. Warren, \$1.

For a design, a moss vase with flowers, to J. Thomas, \$2.

For the second best do., to Miss Russell, \$1.

FRUIT: From J. F. Allen, very fine specimens of the following grapes: Zinfundal, Black Hamburg, White Chasselas, Aleppo, Grizzly Frontignan; also, May Duke cherries, Black figs, and Bergamot limes. From A.

Moore, Concord, sweet apples in fine preservation, a new variety, which promises to be a valuable kind. From W. E. Carter, fine specimens of the Hubbardston Nonsuch apple. From T. Needham, a brace of cucumbers.

VEGETABLES: From T. Needham, fine lettuce.

June 12th. Exhibited.—FLOWERS: From the President of the Society, fine new hardy Ghent azaleas, white camellias, *Brugsuánsia Knightii*, calceolarias, petunias, spiræas, tree pæonies, roses, and cut flowers in variety. From Capt. Sweetlin, of the ship Augustine Heard, from Valparaíso, a cactus from the Araucaria mountains, in Chili. This was a noble specimen of this tribe of plants, measuring nearly five feet in circumference, and very formidable from the immense number of its thorns. From J. E. Teschemacher, a plant of *Ismène calathina*, or white Peruvian Wedding flower, very fragrant; plants of *Echinocactus Ottónis*, and *E. mammillarioides*, a seedling from Vera Cruz, (curious); also, a fine plant of *E. Eyriesii*, with three blooms of its elegant long, tubular, white flowers, and nine buds.

From Messrs. Hovey & Co., nine varieties of new hardy azaleas; also, hand and table bouquets. From J. L. L. F. Warren, several kinds of tree pæonies, very fine; also, rhododendrons, bouquets, &c. Bouquets, roses and cut flowers from A. Aspinwall, W. Quant, W. Mellar, T. Needham, J. Nugent, J. Breck & Co., E. M. Richards, J. Thomas, P. Barnes, W. Kenrick, Messrs. Winship, J. Hovey, and S. Walker.

Award of Premiums:—

POT PLANTS.—For the best six plants, to Wm. Quant, \$2.

For the second best, to A. Bowditch, \$1.

HARDY AZALEAS, HAWTHORNS, &c.—For the best display of hardy azaleas, to Messrs. Winship, \$3.

For the second best display, to Messrs. Hovey & Co., \$2.

For the best display of hawthorns, to Messrs. Winship, \$3.

For the second best, to S. Walker, \$2.

BOUQUETS, DESIGNS, &c.—For the best design, a moss vase, (dissimilar to former ones shown) with flowers, to J. Thomas, \$2.

For the second best design, to Miss Russell, \$1.

For a vase bouquet, to J. Thomas, \$2.

For the best table and mantel bouquet, to Messrs. Hovey & Co., \$2.

For the second best, to Messrs. Winship, \$1.

For the best six hand bouquets, to A. Bowditch, \$2.

For the second best six, to Messrs. Hovey & Co., \$1.

GRATUITIES.—To S. Walker, for a display of ranunculus, \$3.

To J. L. L. F. Warren, for six hand bouquets, \$1. For this and a previous display of rhododendrons, \$3.

To J. E. Teschemacher, for a plant of *Ismène calathina*, and plants of *Echinocactus*, spec. *Ottónis*, *mammillarioides*, (a seedling) and *Eyriesii*, \$3.

FRUIT: From J. F. Allen, six varieties of grapes, fully ripe; also, figs and May Duke cherries.

VEGETABLES.—From T. Needham, string beans and a brace of cucum-

bers. From A. D. Williams, lettuce, rhubarb, and a brace of cucumbers. From A. Robeson, New Bedford, by Wm. Brims, rhubarb. From J. L. L. F. Warren, Giant and Victoria rhubarb.

June 19. *Exhibited*.—FLOWERS: From the President of the Society, several new and fine fuchsias, among which were Empress, a white variety, Lady of the Lake, Vesta, Frostii, and Venus Victrix; two spotted seedling calceolarias, &c. From S. Walker, a seedling phlox, from maculata, being more dense flowered than that old species; also, the double *Lychnis viscaria*. From John Thomas, four plants of pelargoniums and four of calceolarias.

From Messrs. Hovey & Co., a superb specimen of the new and elegant *Hydrangea japonica*; also, bouquets. Bouquets, plants and cut flowers from Breck & Co., J. L. L. F. Warren, A. Aspinwall, A. Bowditch, E. M. Richards, W. Kenrick, James Nugent, S. R. Johnson, W. B. Richards, W. Mellar, G. C. Crowninshield, O. H. Mather, and Messrs. Winship.

The following is the award of premiums:—

PLANTS IN POTS.—For the best six plants in pots, to John Thomas, \$2.

For the second best six, to George Quant, \$1.

A gratuity to Messrs. Hovey & Co., for *Hydrangea japonica*, of \$3.

BOUQUETS, &c.—For the best six hand bouquets, to Messrs. Hovey & Co., \$2.

For the next best, to J. L. L. F. Warren, \$1.

A gratuity to A. Bowditch, for six hand bouquets, of \$1.

For a design, with an oval bouquet, to John Thomas, \$2.

For a moss vase, filled with forty varieties of flowers, to John Thomas, \$2.

For the best large bouquet, to W. Mellar, \$2.

For the second best, to W. B. Richards, \$1.

For the best pair of mantel bouquets, to Messrs. Winship, \$2.

FRUIT: From O. Johnson, very fine specimens of Coolidge's Favorite peaches. From J. F. Allen, six varieties of grapes; Early Tawny nectarines, Black figs, and Coolidge's Favorite peaches; also, May Duke, Elton, and Black Tartarian cherries.

From John Hill, Early Virginia strawberries.

VEGETABLES: From Messrs. Winship, 12 stalks of Myatt's Victoria rhubarb, weighing 12½ lbs.; also, water cresses. From B. V. French, 12 stalks of the same, weighing 15 lbs. Victoria rhubarb from W. Quant. New potatoes from H. Hazletine, Somerville.

June 26th. *Exhibited*.—FLOWERS: From the President of the Society, a variety of new pæonies, among which were sulphurea, a yellowish variety of the shape of Whittlejii, prolifera tricolor, triumphans, grandiflora carnea, Hericartiana, &c.; also, Gladiolus Wilhelminus, scarlet, with white stripe; Lisette, orange, with pink stripe, both fine; and a fine display of roses in variety. From John Thomas, a fine specimen of *Miltônia spectabilis*, three pelargoniums, and other plants. From T. Needham, fine cut flowers of Phlox Van Houttii, with other flowers. From Messrs. Win-

ship, a beautiful specimen of *Virgilia lutea*, and a quantity of hardy roses, azaleas, &c.

From Messrs. Hovey & Co., a splendid display of roses, in upwards of 200 varieties, thirty of the finest of which were as follows:—Carangeon, Sir W. Scott, Provence, Boula de Nanteuil, Chenedolé, Coupé d'Hebe, Geo. IV, Bizarre Marbree, Paul Perras, Madame Plantier, Melanie, Anabelle, Emeline, Ernest Ferray, La Ville de Londres, Aspasie, Neron, Franklin, Gil Blas, Bijou des Amateurs, Mazeppa, Kean, Capitaine Sissolet, Le Meteor, Louise Leker, d'Audigne de la Blanchaire, Letitia, Vandael, Pauline Garcia, and Gazelle; twelve varieties of moss roses, twenty varieties of perpetuals, including La Reine, and eight kinds of Noisettes; also, hand bouquets, &c. From J. L. L. F. Warren, six pot plants, including *Lilium Thunbergianum*. Roses in variety, bouquets, &c., from Breck & Co., W. Mellor, W. B. Richards, W. Kenrick, E. Wight, E. M. Richards, A. Aspinwall, Capt. Macondry, S. Downer, Jr., A. Bowditch, and S. Walker.

Premiums were awarded as follows:—

PÆONIES.—For the best 12 flowers, to J. Breck & Co., \$5.

For the next best 12 flowers, to S. Walker, \$3.

For the best display, to J. Breck & Co., \$3.

For new varieties, a gratuity to Col. Wilder, \$5.

PINKS.—For the best display, to W. Mellor, \$2.

A gratuity to J. Breck & Co., for fine flowers, \$2.

ROSES.—*Class I. Hardy Roses.*

For the best 30 varieties, to Breck & Co., \$8.

For the next best 30 varieties, to Messrs. Hovey & Co., \$6.

For the next best, to J. L. L. F. Warren, \$4.

For the best display, to Breck & Co., \$3.

Class II.

For the best 12 varieties, to Messrs. Winship, \$5.

For the next best, to A. Bowditch, \$3.

Class III. Hardy Perpetuals.

For the best 12 varieties, to Breck & Co., \$5.

For the next best 12 varieties, to A. Aspinwall, \$4.

For the best display, to Breck & Co., \$3.

PLANTS IN POTS.—For the best six plants, to J. L. L. F. Warren, \$2.

For the next best, to J. Thomas, \$1.

BOUQUETS, DESIGNS, &c.—For the best design, to Messrs. Hovey & Co., \$2.

For the next best, to Miss Russell, \$1.

A gratuity to J. Thomas, for a design, \$1.

For the best pair of mantel bouquets, to Messrs. Winship, \$2.

For the best pyramidal bouquet, to Messrs. Hovey & Co., \$2.

For the second best pyramidal bouquet, to J. L. L. F. Warren, \$2.

For the best six hand bouquets, to J. L. L. F. Warren, \$2.

For the next best six, to A. Bowditch, \$1.

FRUIT: From the President of the Society, fine specimens of Boston Pine and Princess Alice Maud strawberries. From A. Aspinwall, a bas-

ket of extra fine Hovey's Seedling strawberries. From N. Stetson, very fine specimens of Boston Pine and Jenny's Seedling strawberries. Two boxes of Early Virginia strawberries, by O. Johnson. From S. Downer, Jr., Hovey's Seedling, Ross's Phœnix, Early Virginia, Willey's Seedling, and Wood strawberries. From John Dunklee, of Brighton, Hovey's Seedling strawberries. From Isaac Fay, Fay's Seedling strawberries. From Josiah Richardson, Hovey's Seedling and Boston Pine strawberries, very fine; also, seedling strawberries. From F. Putman, Salem, seedling strawberries, branches and fruit large, appearance good; represented to be a great bearer. From James M. Richardson, from the garden of Capt. Lee, seedling strawberries. From Azell Bowditch, Stoddard's Seedling strawberry; the committee state that they were "poor specimens of the Wood."

From Messrs. Hovey & Co., two large baskets of Boston Pine strawberries, fine specimens. From Hon. T. H. Perkins, by Mr. Wm. Quant, Black Hamburg, Grizzly Frontignan, Golden Chasselas, and Muscat of Alexandria grapes. From J. F. Allen, twenty-two varieties of grapes,—among them we noticed Tottenham Park Muscat, Wilmot's new Black Hamburg, fine; Austrian Muscat, new; Purple Muscat, new; Zinfindal, fine; Muscat of Alexandria, fine. The grapes by Mr. Allen were tasted by the committee; they were ripe and in great perfection; also, figs, plums and nectarines. From J. L. L. F. Warren, seven varieties of strawberries, viz., British Queen, Prince Albert, Hovey's Seedling, Willey's do., Mottier's do., Early Virginia, and Alpine. Red and White Wood, and Boston Pine strawberries, by John Owen. Mr. Cole presented an apple for a name. From A. Bowditch and Mr. O. Johnson, peaches.

PREMIUMS FOR GRAPES.—The Society's first premium of \$10 for grapes, exhibited before the 4th of July, was awarded to J. F. Allen.

The second premium of \$8 for the same, to Wm. Quant.

VEGETABLES: From Josiah Lovitt, 2d, thirteen stalks Victoria rhubarb, weighing 21 lbs., some of the stalks measuring 43 inches. From T. Needham, fine cucumbers. From T. H. Perkins, by Wm. Quant, fine Palestine lettuce. From Mrs. Pratt, by A. McLennan, Royal Cape lettuce.

HORTICULTURAL MEMORANDA

FOR JULY.

FRUIT DEPARTMENT.

Grape Vines will now need but little attention, such as the occasional stopping of the laterals, as often as they push beyond two or three joints, and the airing and damping the house. Our diary, in another page, is so complete that we need not repeat what we have there so fully detailed. The berries will now begin to color. Vines in pots should be liberally watered, using liquid guano occasionally. Isabella and other grapes in the

open air will now need much pruning,—such as nipping off the young shoots two eyes beyond the bunch, and cutting out all other wood not wanted for bearing next year. A little attention to this will secure larger, better, and higher flavored grapes.

Strawberry beds will need care now; weed and clean all new beds, and lay in all the strong runners and clip off others. Two and three year old beds may be renovated by immediately digging in part of the roots, allowing the new runners from those remaining to fill their place.

Summer-pruning trees should be attended to now. All the strong shoots should have about four inches of the end nipped off; this will induce them to form fruit spurs at the base, and on the old wood.

Plum, Cherry and Pear trees may be budded now.

Insects should now be looked after, especially the pear-tree slug and aphids. A good quantity of whale-oil soap should be kept in readiness, and one washing will immediately destroy them.

FLOWER DEPARTMENT.

Pelargoniums will now be the main objects of attention, where there is a choice collection. The old plants should be headed down very close, and placed in a half shady situation until they begin to push. The cuttings may be put in in pots or in frames, either in the open air—which we think best—or in a cool part of the greenhouse.

Chinese primrose seeds should be sown now.

Hyacinths, Tulips, and other winter bulbs, should be taken up.

Ten week and Victoria Stocks seed should be sown now for winter flowering.

Carnations and Picotees may be layered this month.

Camellias may be potted this month, and grafting the plants may also be commenced.

Oxalis hirta and Bowei should now be potted for early flowering.

Roses, intended for early flowering, should be plunged in the open ground in a sheltered situation.

Mignonette should be sown now for flowering early in autumn.

Azaleas should be repotted this month. Specimen plants should be kept growing in a warm part of the greenhouse, and the others plunged in the open air.

Hardy roses should be layered this month.

Dahlias will require pruning and staking, and, if the weather proves dry, they should be liberally watered, and the ground mulched around each plant.

Heliotropes may now be propagated for next year's stock.

Cyclamens should be plunged in the open ground in a half shady situation.

Tree violets should have all the lateral shoots pinched off, and they will soon form upright plants.

Tree pæonies may be grafted the latter part of the month.

THE MAGAZINE OF HORTICULTURE.

AUGUST, 1847.

ORIGINAL COMMUNICATIONS.

ART. I. *Descriptions and Engravings of Select Varieties of Pears.* By the EDITOR.

WE continue our descriptive list of pears. Some of the number which are enumerated below are tolerably well known, and part of them very highly esteemed kinds. The Ananas is of more recent introduction, and is a very fine early autumn pear.

73. FIGUE DE NAPLES. Hort. Soc. *Catalogue*, 3d. Ed. 1842.

Comtesse de Frénol, }
De Vigne Pelone, } Hort. Soc. *Cat.*, 3d. Ed.

Fig Pear of Naples, *Book of Fruits*, (first series,) p. 91.

Beurré Bronzé, }
Fourcroy, } of some English and American collections.

The Figue de Naples is tolerably well known around Boston under the name of the Beurré Bronzé, it having frequently been exhibited under that name, though incorrectly. Mr. Manning fruited it for several years, and, in his *Book of Fruits*, he described it as a "very productive variety, bearing young, juicy and good." Last year, a tree in our collection, received under the name of Beurré Bronzé, produced several fine pears, and we were somewhat surprised to find it so fine a variety. Whether from the season, the locality, or the soil, we considered it as one of the best pears of the season. It possesses a rather thick skin, but the flavor is peculiarly rich, musky and delicious. Since our description was made, we have observed that Mr. Thompson has described it in the *Gardener's*

Chronicle, and he remarks that "it requires particular management after gathering. It has a thick, tough, softly russeted skin, which appears to permit occasionally a too rapid evaporation of the juices, in consequence of which the flesh does not become melting, but actually the reverse, until it finally decays. To prevent this, it is necessary to pack the fruit away from the free action of the air."

The tree grows very vigorously, with upright brown shoots, sprinkled with brown russet specks, and is very productive: the fruit all have a remarkably clean skin, free from specks. It grows freely, and bears well on the quince. Our description of the *Figue de Naples* (*fig. 26*), is as follows:—

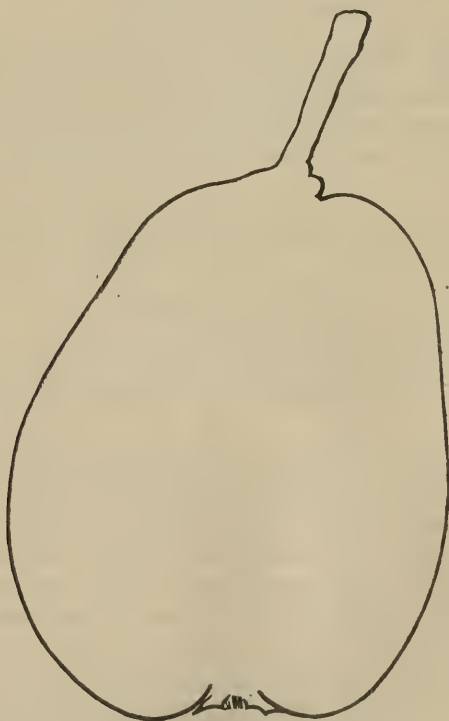


Fig. 26. Figue de Naples.

Size, large, about two and a half inches in diameter, and three long: *Form*, oblong, slightly contracted in the middle,

and very obtuse at the stem: *Skin*, fair, smooth, pale green, becoming lemon yellow when mature, marbled with dull red on the sunny side, and very regularly and thickly covered with small green dots and russety specks: *Stem*, medium length, about one inch, moderately stout, rough, dark brown, fleshy and swollen at the base, and inserted without any cavity: *Eye*, rather large, open, and slightly sunk in a broad, shallow, smooth basin; segments of the calyx broad, long, pointed, and quite reflexed: *Flesh*, yellowish, fine, melting, and very juicy: *Flavor*, rich, sugary, vinous and excellent, with a fine musky perfume: *Core*, medium size: *Seeds*, medium size, plump, brown. Ripe in November, and is in eating three or four weeks.

74. FORELLE. *Hort. Trans.*, Vol. V. pl. 17.

Poire Truite, }
Forellenbirne, } Hort. Soc. Cat., 3d. Ed. 1842.
Trout Pear, of some gardens.

The Forelle is, without doubt, the most beautiful pear which has ever been produced, and would deserve cultivation for its appearance only, if it were even a second rate pear. But it stands almost as high for its excellence as for its beauty. Dr. Diel, in his *Pomology*, speaks of the Forelle as competing with the best French varieties, and Mr. Thompson states that it "merits his eulogium in all respects."

The Forelle (*fig. 27*), takes its name from the resemblance of its beautifully speckled skin to the Trout, and, in the French collections, it is generally called the Truite pear. When the fruit is produced in perfection, it is deeply colored with vermillion, and profusely covered with grayish russet dots, which are margined or rayed with crimson. The tree grows very rapidly, more resembling, in the color of the wood, which is of a rich violet red speckled with grayish white, an apple than a pear: young shoots woolly: leaves, roundish ovate. It is very productive, and grows either upon the quince or pear stock.

Mr. Manning, who described it among the many kinds which he proved in his collection, (Vol. III. p. 49), stated that with him it had not come up to the character given it in the

Pom. Mag., but we suspect he had not produced it under favorable circumstances. Our drawing is from a specimen produced in the collection of Mrs. Heard, of Watertown, in 1846, and, in beauty as well as quality, it was a first-rate fruit. Where the locality is unfavorable as a dwarf or standard, we would recommend it as deserving a wall or an espalier.

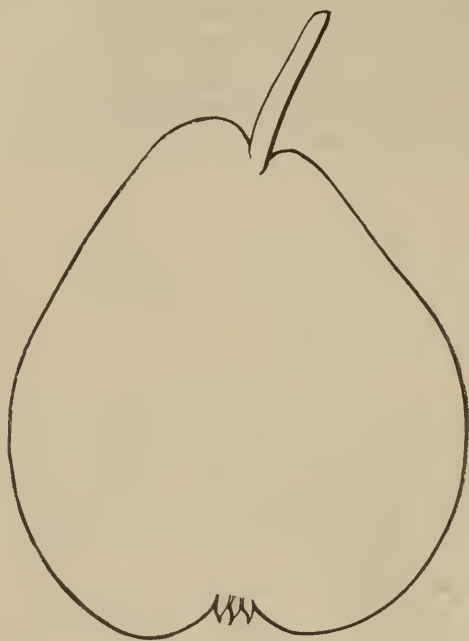


Fig. 27. *Forelle*.

Size, large, about two inches in diameter, and three long : *Form*, oblong obovate, regular, rather the largest in the middle, and tapering to an obtuse point at the stem : *Skin*, fair, smooth, dull yellow in the shade, broadly shaded with vermillion on the sunny side, and beautifully speckled with grayish dots, which are deeply margined with crimson : *Stem*, rather short, about three quarters of an inch, slender, nearly straight, and obliquely inserted in a small, shallow, contracted cavity, with a swollen lip or projection on one side : *Eye*, medium size, partially open, moderately sunk in a small and rather abruptly depressed basin ; segments of the calyx broad

and closed up, little reflexed: *Flesh*, white, very fine grained, buttery, melting and juicy: *Flavor*, rich, sprightly, vinous, slightly perfumed and excellent: *Core*, medium size: *Seeds*, medium size, nearly black. Ripe in November, and frequently keeps till January.

75. ANANAS. *Bon Jardinier*.

Poire Ananas, of French collections.

The Ananas (*fig. 28*), is a new pear, recently introduced into our collections from the French gardens, and it proves to

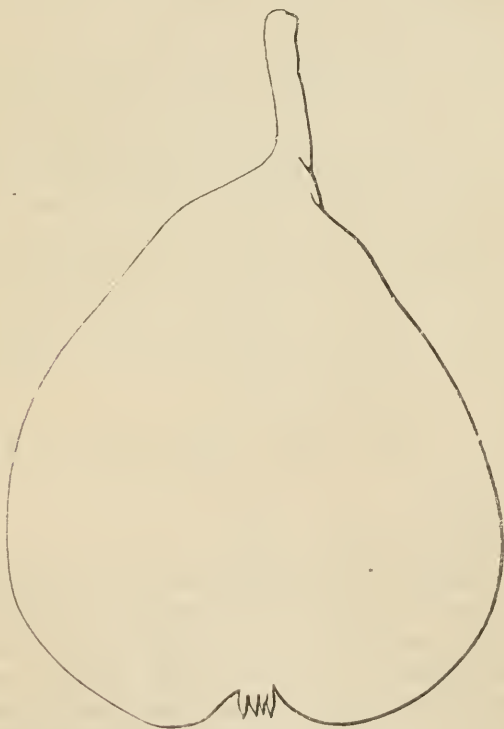


Fig. 28. Ananas.

be a very delicious variety. Of its origin, we have no information. It is not mentioned in the last edition of the *Catalogue* of the Lon. Hort. Soc., and is probably not known in

English collections. It first fruited in 1844 or '45, and our drawing is from a specimen produced in the collection of Col. Wilder last autumn.

The tree is a very vigorous grower, making stout and strong annual shoots, of a rather light olive shade, with very large grayish specks. It thrives well upon the quince, producing abundant crops.

This is not the Ananas d'Eté of the Hort. Soc. *Catalogue*, but an entirely distinct variety, ripening later, and a much richer pear. It is well worthy a place in every select collection.

Size, large, two and a half inches broad, and three inches long : *Form*, pyramidal, slightly angular, large at the crown, and regularly tapering to the stem : *Skin*, fair, smooth, thin, orange yellow when mature, little russeted on the shaded side, slightly tinged with red next the sun, little clouded with green, and covered with russet specks : *Stem*, rather short, about half an inch, stout, rough, brown, wrinkled, and fleshy where it adjoins the fruit, which is slightly on one side : *Eye*, small, closed, and rather deeply sunk in a narrow, angular basin ; segments of the calyx narrow, long and pointed : *Flesh*, yellowish, rather coarse, melting, and very juicy : *Flavor*, rich, sprightly, vinous, and delicious, with a pleasant aroma : *Core*, small : *Seeds*, large, plump, pale brown. Ripe in October, and will keep some time.

76. BEZI DE LA MOTTE. *Hort. Trans.*, Vol. V. p. 132.

Bien Armudi,	}	Hort Soc. <i>Cat.</i> , 3d. Ed.
Beurré Blanc de Jersey,		

This old pear, which was first described by Quintinye, in 1685, upwards of a century and a half ago, and pronounced by him of such excellence as to be likely to take the place of the White Doyenné, is yet very little known. As late as 1830, when it was figured in the *Pomological Magazine*, it was quite new to English collections, and to the present day, with us, it has been confined principally to the gardens of amateur cultivators. It is, however, one of those pears which belong rather more to the orchardist than the amateur, as it is a hardy and vigorous tree, a regular and abundant bearer,

ripening freely and keeping well, and admirably suited for a profitable market fruit. The *Pom. Mag.* (1830), states that it possesses "all the good qualities of the White Doyenné," while Mr. Thompson places it in the *Catalogue* of the Hort. Soc. for 1842 as of 2d quality. This is our estimate of it, strictly as to its eating qualities. In some seasons, we have tasted specimens which were first-rate, while, in the average of years, it will not come quite up to that character. Its other qualities, however, claim for it a place in every good collection.

The Bezi de la Motte (*fig. 29*), is supposed to have originated in the East, as the Bien Armudi, a Turkish variety,



Fig. 29. Bezi de la Motte.

has proved to be the same in the Garden of the Horticultural Society. A warm and dry season like that of 1846 probably suits this variety better than a cool and wet one, as the fruit last year was excellent. The tree is of vigorous and rapid growth, forming a regular and compact head, and it succeeds well upon the pear or quince: on the former stock, it does

not, however, come into bearing until the fifth or sixth year. Wood olive gray, with brownish specks.

Size, large, about three inches in diameter, and two and a half long : *Form*, roundish, somewhat angular, broad and flattened at the crown, and tapering slightly to the stem : *Skin*, rather rough, dull greenish yellow, thickly russeted around the crown, the russet extending over the surface in very large, distinct, and conspicuous dots : *Stem*, short, about half an inch, moderately stout, nearly straight, greenish brown, and rather obliquely inserted in an angular, moderately deep cavity : *Eye*, medium size, open, and deeply sunk in a large, open, slightly angular basin ; segments of the calyx broad, pointed, reflexed : *Flesh*, yellowish white, rather coarse, melting and juicy : *Flavor*, sugary, pleasant, and excellent, with a slight perfume : *Core*, large : *Seeds*, very large, dark brown. Ripe in October, and in eating two or three weeks.

77. BELLE ET BONNE. *Pomological Magazine*, pl. 118.

Schone and Gute, Hort. Soc. *Cat.*, 3d. Ed.

Belle de Bruxelles, of some collections, (incorrectly.)

Lindley, Thompson, and Manning describe the Belle et Bonne (*fig.* 30), as a valuable pear ; and Mr. Kenrick, following the *Pomological Magazine*, quotes its language, viz., that it is "a delicious Bergamot of the best kind." It is one of those pears which are more variable than others, according to the season, abundance of the crop, &c., as in some years it is quite first-rate, and in others not coming up to this character. It is a large and fine fruit, and the tree is vigorous and healthy, not coming into bearing early, but producing great crops when the tree has attained age.

It was introduced into the collection of the London Horticultural Society about the year 1826, from the nurseries of the Messrs. Baumann, of Bolwiller, and Mr. Manning first fruited it in our gardens, and received it from various sources as the Belle de Bruxelles. Wood, dark brownish olive, sprinkled with dark brown spots, short-jointed, with deep green, oval, lanceolate leaves.

Size, large, about three inches broad and two and three quarters deep : *Form*, roundish, narrowing a little towards the

stem, slightly angular, and often depressed: *Skin*, fair, yellowish green, having a faint ruddy tinge on the sunny side, and regularly covered with dull green and dark russet specks, thickest on the shaded side: *Stem*, medium length, about one



Fig. 30. Belle et Bonne.

inch, stout, smooth, curved, light brown, and deeply inserted in a large narrowed cavity: *Eye*, large, closed, and considerably depressed in a very broad, somewhat furrowed basin; segments of the calyx very large, broad and pointed: *Flesh*, white, coarse, slightly gritty at the core, buttery and juicy: *Flavor*, rich and sweet, with a pleasant musky perfume: *Core*, medium size: *Seeds*, small, dark brown. Ripe in September.

73. THOMPSON'S. Hort. Soc. *Catalogue*, 3d. Ed. 1842.

Of the newer and more recently introduced pears, the Thompson's (*fig. 31*), holds a conspicuous place. It is a

Flemish variety, first received by the London Horticultural Society, and has been named in compliment to the able super-

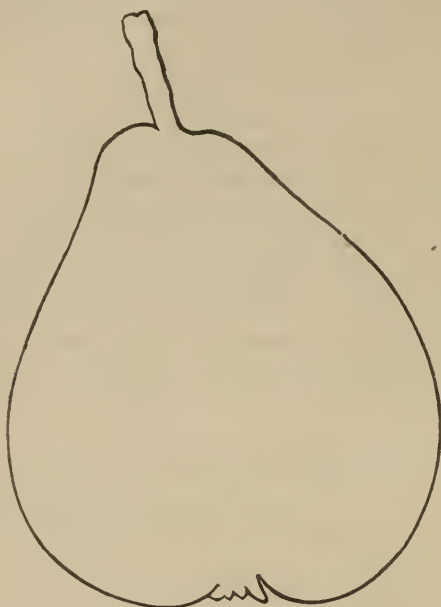


Fig. 31. Thompson's.

intendent of the fruit department, Mr. R. Thompson, by the Society. It is, as its name should indicate, a most excellent pear, possessing a peculiarly delicious perfume, a very melting flesh, and has the sugary character of the *Passe Colmar*, but relieved with a sprightliness which that variety does not possess.

Mr. Manning received the scions of the *Thompson's* from the London Horticultural Society, and first fruited it in 1841, at which time he gave some account of it in our Magazine, (Vol. VIII. p. 64). Since then we have repeatedly tried it, and the last season we had some very fine specimens from the collection of the Hon. J. S. Cabot, from one of which our drawing is made. We have never eaten it of secondary quality.

The tree is rather late in coming into bearing, of vigorous growth, with yellowish olive-colored wood sprinkled with

grayish specks, and the leaves are of medium size, dark shining green, with very wavy margins.

Size, medium, about two inches in diameter, and two and a half long: *Form*, obovate, regular, tapering towards the stem, below which it is slightly contracted: *Skin*, fair, smooth, lemon yellow when mature, considerably russeted around the stem, and on one side: *Stem*, short, about half an inch long, rather slender, slightly knobby, and inserted with scarcely any cavity by the side of a slight projection: *Eye*, medium size, open, and slightly depressed in a small basin; segments of the calyx short, broad, and apparently united: *Flesh*, yellowish, fine, melting and juicy: *Flavor*, rich, sugary and delicious, with a peculiar delicate aroma: *Core*, medium size: *Seeds*, large, long, and nearly black. Ripe in October, and keeps some time.

ART. II. *The Strawberry Question.* By the EDITOR.

START not, dear reader! We do not intend to open anew the whole subject of the strawberry question which has been agitated for several years, and now so satisfactorily settled. Our object is merely to notice the opinions of some writers in regard to our Seedling, and to show how little they know of its true character.

In our last volume, (XII. p. 359), we fully discussed the subject of the fertile and sterile character of strawberries, and stated that a series of carefully conducted experiments had convinced us that the blossoms *never change their form*. If pistillate or staminate, they forever remain so. We also stated, in reply to Mr. Saul, of the Highland Gardens, (p. 455), that every cultivator who found staminate plants in his beds of Hovey's Seedling *might rest assured that he did not possess the TRUE variety*.

Mr. Downing, who ought to know our strawberry without looking at the blossoms,—for we have scarcely a gardener in our grounds who cannot pick out Hovey's Seedling by the leaf alone, among a dozen other sorts,—has stated that his

beds of plants change from staminate to pistillate, and from pistillate to staminate, according to the age and vigor of the plants. So convinced had he become of this being a "fixed fact," that, with becoming modesty, he offered to prove his doctrine by sending to the Massachusetts Horticultural Society, in 1847, twelve plants, in pots, of the staminate Hovey's Seedling.

Now mark the result. Agreeably to his statement, Mr. Downing did send twelve plants to the Massachusetts Horticultural Society in June last, for the Committee to examine and substantiate his views. But judge of the disappointment which followed this liberal offer to prove his theory. The plants duly came to hand, and the committee were totally surprised at the result. Was it possible so great an error could be committed by a nurseryman and an author? In the place of Hovey's Seedling, which every cultivator could detect at once, some spurious variety was received, having no resemblance to the original whatever, the foliage being small and narrow, and the trusses of flowers of an entirely different form. So apparent was this, that the plants did not need examination, and those who saw them could not conjecture how a pomological writer could venture to send such plants until he had taken some pains to ascertain their genuineness by some other mode than the staminate blossoms: for it argued that the true variety, though now spread all over the United States, was quite unknown to Mr. Downing.

Such is the *basis* of his modified theory that "some perfect blossomed sorts have a tendency to vary into barren forms"; and these twelve plants are evidence, introduced by himself, to show that a little observation, and the least *practical* knowledge of the subject would have long ago convinced him of its utter absurdity.

We might notice some of the statements which are occasionally made, that individuals who procured their plants of Messrs. Hovey & Co. have found some staminate sorts among them: those who are conversant with the habits, character and cultivation of the strawberry are aware that seedlings are constantly springing up from the berries which partially decay on the vines: if there are any who do not know this, they are referred to English writers, and we may here allude

to an article in the *Transactions* of the London Horticultural Society by Sir George Stuart Mackenzie, (Vol. VII. p. 342). He states "that many berries decay and are passed over, and inferior ones are not gathered. The seeds from these drop, and new sorts come up, and if runners from these are taken, of course they are not the true kind." This accounts for the staminate plants, which, after a year or two, spring up, and if, in making new beds, the plants are not selected by those who know them by some other way than the "staminate flowers," the error will be perpetuated, and inferior sorts be the result.

Not long since, we noticed that some western cultivators had purchased staminate Hovey's Seedlings of some of the Eastern nurserymen, who had found such in their beds, and supposed they were the original form of the variety: and notwithstanding we have repeatedly asserted that the original plants were the same as they are now—*imperfect*, having the stamens, but few or no anthers—still they imagine that their short acquaintance with the variety is better than the testimony of the originator, before whose eye they have constantly been for thirteen years. It would be quite useless to argue the question with those who hold such absurd notions.

We may, therefore, repeat that Hovey's Seedling, when true, must have some staminate variety to impregnate it, and, for this purpose, we use exclusively the Boston Pine, which is fully equal to it in every quality but size; being a week earlier, the most productive of all strawberries, of delicious flavor, and only about one quarter less in size than Hovey's Seedling, averaging four inches in circumference.

ART. III. *On the Transplantation of the Coniferous Forest Trees (Pines, &c.), of New England to the Southern States.*
By DR. A. MITCHELL, Portland, Me. In a Letter to the
HON. H. A. S. DEARBORN. Communicated by Gen. Dearborn.

SINCE my last communication to you, I have received a letter from Dr. Bacon, informing me that he has been suffering

from a severe attack of rheumatism, which has prevented him from making a full report on the culture of the Arrow Root; and promises to do so as soon as he recovers. In my previous communications to you, I hinted at making a few cursory observations on the difference of success in the cultivation of plants, and transplantation of trees, from altitude of mountains and elevated lands in the same line of latitude, and those taken from a similarity of soils, more on a level with the ocean in adverse latitudes, whether high or low. It appears you have communicated my previous letters, which were published in the Boston *Magazine of Horticulture*, edited by C. M. Hovey, Esq., of which I acknowledge the receipt of May and July numbers. I was truly pleased with the perusal of a paper so admirably adapted to the wants of this country, eliciting so much valuable and practical information, which should meet the most sanguine wishes of every lover of Horticultural pursuits and Botanical science: liberal favors should be extended to such a work as the present, and also the one to be published on the *Fruits of America*, which, we hope, will meet with a large share of public patronage.

In the autumn of 1840, I suggested to several gentlemen of Charleston, S. C., the probability of success in the transplantation of some of our coniferous forest-trees, to their region. They replied to me that the experiment had been tried for several years, and had invariably failed; although every thing had been tried to crown their efforts with success. Notwithstanding this discouraging answer, I was determined to try the experiment, and impose on them the enterprise; knowing that many of their specimens were taken from the elevated table-lands of that State, or the swamps of our country—with the roots denuded of earth, often shipped in the spring—arriving there withered by exposure. With these hints of the supposed cause of failure, I accordingly selected a soil in this country, as our sandy plains in exposed situations, to take up my trees, having in view the similarity of soils in Carolina, in which I was to transplant them; they were principally the Balsam-fir, intermixed with varieties of the Spruce, amounting to some hundreds, varying from one to six feet in height, taken up the latter part of October, with a large ball of earth on their roots, and packed in crates. They arrived there safe

with the exception of some of them being heated and spoiled by remaining too long under the hatches, and would have been liberally purchased, had there not been a popular clamour against them, that they would not live; yet I suggested the propriety on the plan proposed of a gradual acclimation, by not placing them at first in too exposed situations. I, however, succeeded in distributing them for a small remuneration; and, as a *lone solitaire* of the Balsam-fir was said to exist in the precincts of the city, I busied myself in hunting it up. On finding the tree alluded to, it proved to be a species of the white pine, (*Pinus Stròbus*), growing in the garden at the neck, belonging to the Hon. Joel R. Poinsett, a gentleman well known in the science of Horticulture, as well as his able compeer, the Hon. Thomas Bennett. Some weeks elapsed, and I made an excursion into the country, and, when visiting a plantation belonging to Mrs. Lynah, I accidentally discovered a tree of the Balsam-fir growing in this lady's garden on the banks of Stone River. This tree was thriving luxuriantly in the most exposed situation, under the direct rays of the sun, on an elevated sandy ridge; this native of my hills had undergone, by acclimation, a remarkable change, its acerose leaves nearly twice as large, presenting a brilliantly varnished appearance, with its foliage of a rich deep-green, and a healthy structure throughout. The lady informed me that a gentleman from Massachusetts presented this tree to her some time in the fall—six years previous. This encouraged me as to the future success of those I had transplanted; and I had the satisfaction of seeing many of them without much care pass through the first and second summer in a thriving condition, as, out of the city in some places, five out of seven succeeded; since that, I can give no farther information concerning them, but have not the least doubt that success would have been certain had the trees been younger, or seeds had been obtained from trees growing in exposed situations in soils similar to those of the south.

The surest way for the collection and arranging of facts, in the acclimation of plants, is to devote our attention to Botanical Geography. Thus, plants or trees of the same family do not thrive nor succeed so well when transplanted from elevated and mountainous regions to the plain, however contiguous

the localities or habitations of such plants may be, as those from opposite latitudes or zones of a great distance, with a similarity of soils. This is applicable also to seeds derived from the parent stock of stunted growths, otherwise physically deteriorated constitutions of such plants growing on mountains, in sheltered positions, shady ravines, or in soils or positions presenting no similarity. It is well known to every accurate observer, that powerful summer heats are capable of causing trees and shrubs to endure the most rigorous winters; which would militate decidedly against the opinion of some as to the acclimation of plants from Southern to Northern latitudes. Seeds contained in pericarps germinate sooner if planted immediately after being separated from their natural covering. I do not think that the mean annual temperature of various countries in the temperate zones and tropical regions affect the growth and nutrition of plants so much as has been supposed. The habits and life of a plant may be changed, and brought to exist on food not naturally suited to its constitution by the care and cultivation of the same by man, who is the most active agent in the dispersion of plants. Many plants, as those the most useful to mankind, by slow and gradual acclimation, become distributed over a vast region; as a proof of this position, we have only to point to the Indian corn, rice, cotton, and sweet potato, growing in our own country. Again,—plants, whether herbaceous or perennial, as in medical botany, may, by removal from opposite zones, become stunted in their growth, with less luxuriance of appearance, yet there will be a greater concentration of active properties, than what is possessed in its original habitation. The designs of our Creator are obvious in all of his works. Without care or much protection by man, we see the delicate plant, *Nasturtium peruvianum*, or Indian cress, braving the different climes, and lingering on the verge of our Northern winter. This plant is a native of Peru; its systematic name is *Tropæolum majus*, from *τροπαιον*, or *Tropaion*, a warlike shield or trophy. “This fanciful but elegant name was chosen by Linnæus for this singular and striking genus, because he conceived the shield-like leaves and the brilliant flowers, shaped like golden helmets, pierced through and through, and stained with blood, would justify such an allusion.” It was first brought to

France from Peru, S. A., in 1684: in its original state, it is said to be found growing to a considerable height, forming quite a tree.

I cannot refrain from expressing the most earnest wishes for the success of our enterprise in establishing an Experimental Garden in Florida, for the cultivation and acclimation of tropical plants. The feasibility of the plan is so clear that the national advantages derived therefrom cannot but strongly impress the public with the ulterior benefits which will grow out of its foundation when brought to maturity. As it will be the means of introducing many of the most valuable plants of the tropics from distant regions, promoting agricultural science, increasing the original material of our manufactures, adding largely to our staple commodities and commercial exports, and, above all, diffusing a love for the cultivation of plants in the rising generation, that will permanently base and characterize us as an agricultural nation. With great esteem, I am, dear sir, very respectfully yours,
AUGUSTUS MITCHELL, M.D.

HON. H. A. S. DEARBORN.

We have already expressed our opinion of Dr. Mitchell's papers, which possess great value, and we are gratified in being the medium of communication, through General Dearborn, of his letters. For his complimentary notice of our labors in the science of Horticulture, we feel highly honored. Another excellent letter is postponed, for want of room, to our next.
—*Ed.*

ART. IV. *Descriptions of Eight New Varieties of Prairie Roses.* By the EDITOR.

No productions of the flower garden have attracted more attention within a few years than the new and beautiful varieties of Prairie roses, which now form the principal ornaments of every good collection during the month of July, after other roses have gone. Mr. Feast, who was the first to give a new feature to our native Prairie, deserves the thanks of

every lover of this beautiful tribe for the origination of his superb seedlings. For years, we have been cultivating foreign roses, very few of which, in comparison with the Prairies, deserve a place in the garden. Some of the Bour-saults are exceedingly showy and brilliant, but, with few exceptions, they, like all other varieties of climbing roses, must give way to the Prairies.

Two years ago, we gave a full descriptive account of all Mr. Feast's seedlings, (Vol. X. p. 246,) with a view to correct any errors which might have arisen in the dissemination of the kinds; and we believe our article was the means of enabling cultivators to detect mistakes, and the different varieties are now readily obtained under the correct names.

It is well known that, since Mr. Feast produced his fine seedlings, our correspondent, Mr. J. Pierce, of Linnæan Hall, near Washington, D. C., whose place we have twice noticed, has raised several new and extremely beautiful varieties, some of them vicing with Mr. Feast's, while others much excel them. Mr. Pierce raised twelve kinds, brief descriptions of which he sent us last season; but, as they only referred to the color of the flowers, we thought it preferable to delay their publication until we could render them complete. Most of our plants have flowered finely this year, and we have been enabled to do so, and we now annex the following descriptions of each:—

ANNE MARIA.—Flowers, medium size, pale pink, with rose centre, cupped and very double: clusters, large, numbering twenty to thirty flowers, and rather compact: foliage, medium size, very pale green, undulated, slightly serrated, and rather smooth: spines, strong, pale green: habit, robust, vigorous and good. It is quite distinct from any of the others.

EVA CORINNE.—Flowers, large, very delicate blush, with beautiful carmine centre, globular, and very double: clusters, medium size, containing from ten to twenty flowers, rather compact: foliage, medium size, rugose: spines, purplish: habit, vigorous, and very erect. This is the most delicate of all the Prairies, and its clusters of blush flowers, with their deep centre, which are perfectly globular and quite fragrant, entitle it to a prominent place in every garden. It blooms quite late.

MISS GUNNELL.—Flowers, medium size, of a delicate blush or buff, precisely of the shade of Lady Hume Camellia, cupped, very regular, and double: clusters, large and spreading, numbering twenty-five to thirty flowers: foliage, large, undulated, and partially rugose: habit, vigorous and good. This is quite unique for the delicate tint of its flowers, which are produced in large clusters. It is one of the very best.

JANE.—Flowers, medium size, of a beautiful light, or lilac, rose, imbricated, and very double: clusters, large and rather compact, numbering twenty-five or thirty flowers: foliage, large, coarsely, and sharply serrated: habit, very strong and vigorous.

RANUNCULIFLORA.—Flowers, small, pale blush, very much resembling Baltimore Belle: clusters, large, usually twenty or thirty flowers: foliage, very rugose: spines, purplish: habit, vigorous and good. This variety is slightly fragrant, and flowers rather late.

PRIDE OF WASHINGTON.—Flowers, medium size, pale rose, cupped and double, somewhat resembling Jane: clusters, medium size, numbering ten to twenty flowers: foliage, medium size, slightly serrated, and nearly smooth: habit, vigorous and good.

TRIUMPHANT.—Flowers, medium size, deep brilliant rose, imbricated, very double, and finely formed: clusters, large, and rather compact, numbering from twenty to thirty flowers: foliage, very large and handsome, undulated and bright green, deeply and sharply serrated: habit, very strong and robust. This variety is remarkable for its ample and beautiful foliage, as well as its deep and brilliant rosy flowers.

PRESIDENT.—Flowers, small, deep pink, compact, and very double: clusters, medium size, and rather loose, numbering fifteen to twenty flowers: foliage, medium size, rugose, and rather deeply serrated: prickles, purplish red: habit, vigorous and good. This is one of the latest flowering varieties.

These are all Mr. Pierce's seedlings, eight in number. We have four others, which have not yet flowered sufficiently strong to give a correct description: their names are, Mrs. Hovey, a superb white; Virginia Lass; Linnæan Hall Beauty, and one unnamed. Another season they will probably bloom in fine condition. Mr. Pierce speaks very highly of

Mrs. Hovey, as being a fine white, the "largest, doublest and best" of all his seedlings; it is of superb habit, with splendid deep green foliage, and, if it proves a pure white, it will be the greatest acquisition which has yet been made.

In our volume for 1844, (X. p. 98,) will be found an article by Mr. Pierce, upon the Prairie rose, with some remarks on its employment for hedges or live fences. In that article he states, that, having sown a lot of seeds for the purpose of stocks, "he was not a little surprised to find that he had among them twelve fine varieties of double roses." It would be gratifying to amateurs to know how he procured the seed by which he should be so very successful in producing these double varieties; whether they were from the single Prairie, or from the double varieties—or whether they had been impregnated with other sorts. We trust Mr. Piérce will find the opportunity to communicate this information, that those who wish to follow up his experiments may have some guide as to the best method to adopt to attain the end in view.

To Messrs. Feast and Pierce, the lovers of the rose are deeply indebted. Mr. Feast, we are gratified to know, has received some reward for his beautiful productions. We trust that Mr. Pierce, whose seedlings are fully equal to any which have been raised, will, in due time, also receive that token of merit which is justly his due.

ART. V. *On the Propagation of Stove and Greenhouse Exotics: in a Series of Letters.* By JAMES KENNEDY, Gardener to S. T. JONES, Staten Island, New York.

LETTER IV. *Propagation by Layers.*

THERE are many kinds of Exotics, such as the *Myrtus*, *Jasminum*, *Nerium*, *Punica*, &c., which succeed best by this mode of propagation, and, indeed, it may be considered the most certain mode of propagation by division. The great advantage it has over any of the other modes is, that the part layered receives nourishment from its parent while roots are being formed, whereas cuttings get no further supply than

that laid up in the leaves. The state of the wood most favorable for layers is that of a medium state for ripeness; both wood and bark should be softish and not too ripe; and, above all, in a perfectly healthy state. The month of May is a favorable time for performing this work. Shoots or branches properly situated for layering, should be brought down gently, slit, and inserted into the pot of the parent plant; but when this is not convenient, let pots be filled with the soil in which the plants love to ramble, and placed conveniently near for the purpose: let them be secured firmly with wooden pegs, and cover them about two inches or so with suitable soil, over which let a little moss, or mowings of short grass, be placed to keep the earth moist. This done, give all a good soaking of water, which must be repeated regularly when necessary. As soon as roots are found to protrude, an occasional watering with clear liquid manure would be of great benefit to the young layer. At any rate, we are certain it would not do injury, and, therefore, might be applied without risk. By attending to the above hints, the shoots will be effectually rooted, and ready for potting off by the end of the summer, but, should there be any not sufficiently rooted, they must be allowed to remain till the following spring.

LETTER V. *Propagation by Inarching.*

When it is desired to inarch any particular kind of Exotic, the stock to be grafted on, as well as the plant from which the graft is to be taken, must stand sufficiently near each other to allow the branch, as it grows on the parent plant, to approach and join readily to that part of the stock where it is desired to be worked on, forming a kind of arch, for the graft is not intended to be cut off till some time after performing the operation; nor is the head of the stock intended to be cut off till there is a perfect union between the two. The *Citrus*, *Punica*, and similar exotic genera, are often propagated by this mode, on stocks raised from pips; and some genera, such as the *Magnolia*, *Camellia*, &c. &c., are generally worked on the commoner sorts, and sometimes three or four sorts on one stock; in fact, I have seen as many as twelve varieties of the camellia on one stock, which was, indeed, a varied and imposing object when in flower.

The single red camellia is the best for stocks to work upon; it is easily propagated by cuttings; and it produces a much greater quantity of fibrous roots than any of the other sorts, and, consequently, must be able to convey a greater quantity of nutriment up into the system. The time to take off the cuttings is about the middle of May, or when the wood has become somewhat firm. They should be cut off in a horizontal direction, close at the place where they pushed from last, and smoothed off a little at the base with a sharp knife. Well-drained pots, the same size recommended for seeds and cuttings, will exactly suit. Let the pots be filled with equal parts of loam and silver sand. After inserting them tightly into the pots, give a little water to settle the soil, when they should be put in a cool frame for a week or so, and kept shaded when the sun is strong, after which they should be plunged to the rims in bottom heat, and regularly watered when necessary, and kept shaded, as above remarked.

When they have struck root, which is generally indicated by their pushing young shoots, they should be potted off singly into small pots, well drained. A compost composed of the following materials will be found suitable:—To a barrowful of turfy loam,—not sifted, but chopped with the spade,—add half a barrowful of well rotted cow manure; half a barrowful of peat and leaf mould; and one fourth of a barrowful of silver sand: by following this mode, the young propagator will soon have an ample supply of stocks to practise upon.

Staten Island, July 28th, 1847.

ART. VI. *Floricultural and Botanical Notices of New and Beautiful Plants figured in Foreign Periodicals; with Descriptions of those recently introduced to, or originated in, American Gardens.*

Calystègia pubescens.—This new and beautiful climber, which we lately noticed, (p. 78), as one of Mr. Fortune's acquisitions in China, is now beautifully in bloom in our collection. Mr. Fortune sent it home as a double convolvulus.

It has much of the habit of the common bindweed of the fields, with slightly pubescent foliage, and the flowers are about the size of an anemone, irregularly double, and of a pale, delicate pink. It will probably prove a fine plant for turning out into the border in the same way as the *Ipomæa Learii*. At present, it is extremely rare. It is a valuable acquisition to our summer flowering greenhouse plants.

16. *FUCHSIA MICRA'NTHA* Hook. Great-flowered Fuchsia. (*Onagraceæ*.)

A greenhouse shrub; growing two feet high; with rosy crimson flowers; appearing in summer; a native of Peru; increased by cuttings; cultivated in good rich light soil. *Flore des Serres*, Vol. II. pl. 151. 1846.

Among all the fuchsias which have been introduced, this species stands conspicuous, not only in the color of the flowers, which are of the most brilliant deep rose, but in their very large size, and the abundance in which they are produced on plants not more than two feet high. It was found in Peru by Mr. Lobb, collector for Messrs. Veitch of Exeter, and first flowered in their collection in 1845. It is one of the most desirable which has yet been introduced, having all the splendor of the *F. corymbiflora*, but, unlike that variety, blooming with the ordinary care given to the common varieties. (*Flore des Serres*, Sept. 1846).

17. *METHO'NICA LEOPOLDII* Van Houtte. King Leopold's Methonica, (*Liliaceæ*).

A bulbous plant; growing four feet high; with yellow flowers; appearing in summer; a native of Africa; increased by offsets; cultivated in sandy peat and loam. *Flore des Serres*, Vol. II. pl. 163. 1846.

Another fine plant belonging to the liliaceous tribe, and having somewhat of the noble appearance of the Japan lilies, and like them flowering in summer. It is described as having a majestic bearing, ample and deep green foliage, and large flowers of a soft yellow, marbled and striped with rose, and the colored figure fully justifies the description. It was sent home from the western coast of Africa in 1845, by the collector of Van Houtte, and first flowered at his establishment in August 1846. It is named in honor of Leopold, King of Belgium. It is of robust habit, but the stems are rather slender, and the leaves, which are recurved, have a terminal tendril which is generally curled up. The flowers are very

large, with undulated segments. It requires the same soil and treatment as the Japan lilies. Increased by offsets in the usual way. (*Flore des Serres*, Nov. 1846).

18. *CAMELLIA JAPO'NICA* var. *LA REINE*. The Queen's Camellia. (*Ternstromiaceæ*).

This is stated to be one of the most beautiful camellias which has yet been produced; of exquisite form, and of a pure white, delicately tinted with rose: petals round, and finely imbricated. Its history is not known; but it was procured by Van Houtte of an amateur cultivator, whose taste for the camellia was so nice that but few varieties were esteemed of sufficient excellence to deserve cultivation: it has also been pronounced, by the principal amateur cultivators of Gand, "one of the three best camellias known." (*Flore des Serres*, Nov. 1846).

19. *ABUTILON PÆONIFLO'RUN* *Nob.* Pæony-flowered Abutilon. (*Malvaceæ*).

A greenhouse plant; growing four feet high; with deep crimson flowers; appearing in summer; a native of Brazil; increased by cuttings; cultivated in peat, loam, and sand. *Flore des Serres*, Vol. II. pl. 170. 1846.

A pretty species of the abutilon, with bright rose-colored flowers, and pubescent foliage, attaining the height of three or four feet, and flowering in clusters at the ends of the branches. For out-door cultivation in summer, it will probably become a very ornamental object. Cultivated in any good soil, and increased by cuttings. (*Flore des Serres*, Nov.)

20. *LESCHENAU'LTIA SPLE'NDENS* *Hook.* Splendid flowered Leschenaultia. (*Goodeniaceæ*).

A greenhouse plant; growing a foot high; with scarlet flowers; appearing in spring; a native of New Holland; increased by cuttings; cultivated in peat, leaf mould, and sand. *Flore des Serres*, Vol. II. pl. 176. 1846.

The beauty of the well known *Leschenaultia formosa*, is familiar to all cultivators. *L. splendens* is of the same habit, but more robust, and the flowers have all the brilliancy of the old *Verbena Melindres*, being deeper and brighter than *formosa*. It was introduced into England by Messrs. Lucombe & Pince, and a plant exhibited by them in 1846 had upwards of three hundred flowers expanded. It should be introduced into every fine collection of plants. Its cultivation is the same as for the other species. (*Flore des Serres*, Dec.).

21. HYDRA'NGEA INVOLUCRA'TA, var. FL. PLE'NO, *Sieb.* Double-flowered Hydrangea, (*Saxifragacææ*).

This is another beautiful Hydrangea, introduced by Dr. Siebold from Japan, and somewhat of the character of *H. japónica*. The sterile flowers compose the outer circle of the corymb, and are double, of fine rose color, and resemble little pompon roses. The fertile flowers are numerous, and fill up the centre. Siebold found it growing in mountainous districts, flowering in the months of July and August. This indefatigable collector, it is also stated, distinguished four varieties, viz., one with lilac flowers—one second with blush flowers—a third with yellow flowers—and the last with rose-colored flowers, which is the one now under notice. In habit, the plant is erect and handsome. It will prove a beautiful companion to the *H. japónica*, and should receive the same treatment as that species. (*Flore des Serres*, &c., Jan).

22. BEGO'NIA FUCHSIOI'DES *Hook.* Fuchsia-like Begonia. (*Begoniacææ*).

A greenhouse plant; growing two or three feet high; with scarlet flowers; appearing in winter; a native of New Grenada; increased by cuttings; cultivated in peat, loam, and sand. *Flore des Serres*, &c., Vol. II. pl. 212. 1847.

This is without doubt the finest Begonia which has yet been introduced. The flowers are very large, of a brilliant scarlet, and, being produced in long, pendent racemes, they have the appearance of a fuchsia, from whence its name. It is of easy cultivation, commences flowering in winter, and remains in bloom for a long time. Its cultivation is the same as that for the other species, of which some are well known in our gardens. This and the *B. coccinea* should be in every good collection. Their brilliancy would add greatly to the appearance of the warm greenhouse or stove during the winter and spring months. (*Flore des Serres*, &c., Mar).

MISCELLANEOUS INTELLIGENCE.

ART. I. General Notices.

Culture of Asparagus in Germany.—Numbers 20, 21, and 22, of the *Chronicle*, the last I have received, contain sundry articles on the culture of asparagus, by which it appears that, in your country, the preference is

given to asparagus which is suffered to grow some inches above the ground, and which, consequently, acquires a green color by atmospherical influence. You consider this mode of culture preferable for two reasons : first, because the eatable part of such asparagus is larger ; secondly, because it has a finer flavor.

Living in a part of Germany where the culture of asparagus is very common, I hope the following remarks, though from a foreigner, will not be unwelcome. Asparagus which has obtained a green color by its being exposed to the air, will neither be grown nor eaten here, and, strange enough, exactly for the same reasons which have been alleged by you for growing it above ground. However, we do not avail ourselves of artificial means, as supposed by you, such as tubes of earthenware or metal, and still our asparagus, if well managed, is white and eatable almost the whole length.

The manner of growing it is as follows : It is never planted otherwise than in a deep, light, and sandy soil, which has been trenched to a depth of three feet, well drained and well manured. A thick layer of horsedung is put on the bottom of the trench and mixed with the soil. Strong loamy or clayey soil is decidedly disadvantageous to the growth of this vegetable. It will not thrive in it, does not become tender, and will very often become brown spotted, which the common people here call ironmould (*Cipumala*), especially if drainage has been neglected.

We take plants of two or three years' growth, according to their vigor, and usually plant them in furrows, which are made at two feet distance, and from one and a quarter to one and a half feet deep. The distance between the plants is likewise two feet. In these furrows the plants are permitted to grow uncovered from the month of March or April, the usual and best time for planting, till the beginning or middle of November ; at all events, before severe frost is coming on. The soil, which has been taken out of the furrows and heaped up at the sides, is then put in, and the beds are completely levelled. The plants have had time during summer to establish themselves sufficiently.

Next spring, the young shoots will make their appearance above ground, and if every thing has been duly attended to ; if strong and healthy plants have been selected, and if, besides, water has been given during a dry season, not a single one ought to fail. Some people begin to cut the strongest shoots in the third year, but a better result will be obtained by leaving them undisturbed till the fourth summer, only giving them, every spring, in February or March, a good dressing of cowdung. Manure is the most essential requisite for growing fine and tender asparagus. The shoots are cut at sunrise and late in the evening, at a length of not more than nine inches, cutting them with a long knife under ground as soon as the top of the shoot is lifting the soil. Asparagus will always have the finest taste if eaten immediately after having been gathered, but ought never be kept longer than one day, and should be covered meanwhile with light earth, sand, or some other material of this description. It is a very bad practice, lately in use with our market gardeners, to immerge the asparagus, immediately after cutting, in a tub with water, leaving it in the water till they bring it to mar-

ket. By this practice, the finer flavor is altogether lost, and the cooks should be warned against doing the same.

Wherever manure is not a very expensive article, the culture of asparagus pays well, since the lightest and the most sandy land, where nothing else can be grown with advantage, can easily be adapted to its culture, and will yield a rent for a long series of years. Besides, the same land can be made use of for carrots and other vegetables, when the time of cutting is over. Living myself some hundred steps from the Baltic, and having read different accounts of the famous asparagus culture at the sea coast near San Sebastian, in Spain, I have last year made the experiment to grow it in pure sea sand containing no humus or vegetable matter whatever. It only received a moderate supply of manure, and has even not been watered during the last hot summer; nevertheless, it is growing this year so well, that I might have cut a tolerable quantity of shoots as big as a lady's finger, if I would be foolish enough to do so.

The price of asparagus with us varies from four to seven or eight schillings, or English pence, per pound, the former being the general price from the moment the weather begins to become warm. Many thousand pounds are sent by the steamers to Sweden and other foreign countries, since the Lubeck asparagus is well renowned. Though I never had the advantage of seeing your fine country, and, therefore, cannot be a judge of your green asparagus, I have several times eaten green asparagus in Italy and France, but I dare confess merely for want of better. However, there is no quarrelling as to matters of taste. As far as regards tenderness, I am at a loss to understand how asparagus can improve by being exposed to the drying influence of air, wind, and sunshine. It may become more aromatic, though I doubt it, but it will certainly require a greater exertion in being masticated.

Some persons assert that another kind of asparagus is cultivated in some parts of the south of Germany, which always appears green on the table, though white shoots are equally eaten. I have hitherto not been able to procure any authentic information about its existence, and am inclined to think, that only the manner of culture will produce the difference. An English giant asparagus has lately been offered by some nurserymen, likewise hitherto not cultivated by myself. Different sorts may require a different treatment.

The season for asparagus is at present on the decline. However, I have requested a friend at Lubeck to send you with this letter a sample of our market asparagus, grown and sold in the common way, and I beg you to give it a fair trial, not overlooking that it will have been cut almost a week when arriving with you.—*Gard. Chron.*, 1847, pp. 403, 404.

Cultivating the Pine Apple in the open air in England.—The last mail brings to hand our foreign papers, and we find in one of them an important article on the growth of the pine apple,—heretofore supposed to require the very highest temperature,—in the open air. The communication of this fact has been made by Lady Rolle, of Bicton, in Devonshire, to Dr. Lindley, and we quote the whole from the *Chronicle*, and would particularly ask our

readers to notice his remarks on what he considers the "practical" interest of the experiment, viz: the necessity of a *low night temperature in forcing-houses* of all kinds. To our cultivators, however, the communication is of greater importance; as, under our burning sun, during summer, there is no doubt of the perfect ripening of the pine apple, and other fruits, if the plants could only be stowed away from danger of frost in winter, and then set out in properly prepared beds, or pits, in summer, exposed to the sun and air. The subject is one which we shall refer to again; for the present, we have not room to say more.—*Ed.*

The name of Bicton will long be associated with important experiments in the cultivation of the pine apple. The latest which has come to our knowledge has had for its object a demonstration of the *possibility of ripening this fruit in the open air* during our summer.

We learn from a statement, which Lady Rolle has been so obliging as to put into our hands, that in *May* last Mr. Barnes, having some plants ready, although the weather was unfavorable, opened a trench, casting the earth right and left, so as to form a bank on each side, which he imagined would afford some shelter from cold winds; in the bottom of the trench he placed bricks in threes, in the form of a triangle, so as to make a dry bottom for the plants to stand on, and, at the same time, to secure a ready passage for air and water. The plants, having been placed on the bricks, were packed to the rims of the pots in tree leaves, which had been used during the winter in and about hot-beds. This being done, the whole surface, banks and all, was covered with *charred* hay or grass, which Mr. Barnes considered the best material for absorbing heat, retaining it, and giving it off gradually; in which expectation he has not been deceived, for although the weather proved cold at intervals, stormy and windy, with frosty mornings, and many dark sunless days, yet no injury was sustained, and when the sun did appear the fruit made great progress; at the same time the suckers which sprung up grew vigorously and were most healthy. The varieties of pine apple employed in this experiment consisted chiefly of Queens, together with Black Jamaica, Montserrat, Enville, Moscow Queen, Anson's Queen or Otaheite, and Black Antigua, &c. The plants employed had never been subjected to fire heat at any time. They were turned out after they had blossomed.

A pine apple thus produced has been placed before us by Lady Rolle, and we can state that it was a Queen, of *excellent quality*, weighing three pounds fourteen ounces, although from having been cut several days it had lost some ounces. It was perfectly well swelled, with the exception of a small portion below the crown, which was "blind;" this did not, however, prevent its being a handsome table fruit.

It thus appears that so tender a fruit as the pine apple may be enabled to bear full exposure to the air of May, June, and July in this climate, by a little judicious management. The cold winds were kept off by banks thrown up across (we presume) the prevailing currents. The want of a sufficient amount of earth heat was compensated for by a "lining" of leaves still capable of fermentation. And then, by covering the scene of the ex-

periment with a black substance, the heat absorbing power of the ground was so much increased as to enable it to maintain a night atmosphere round the plants high enough to repel the late frosts of Devonshire, and to maintain a healthy growth during the day. These are, we imagine, the three points which have chiefly led to success. It must, however, be remarked that the *fruit was set before the plants were exposed to the air*. Had this been neglected, we believe the experiment would have failed; and we even attribute the "blindness" of the upper part of the fruit to the setting process not having been completed *there*, at the time when the plants were removed from shelter.

It may be alleged that this experiment is more curious than useful; that the only practical result is that it merely enables a fruiting house to be cleared in May, and immediately converted into a succession house, instead of remaining full of fruiting plants till August. We, however, do not regard it in that light. It will be highly interesting to know what sort of young plants will be formed by the suckers thus obtained; Mr. Barnes says they are extremely vigorous; we should expect them to be so; and if they continue to thrive thus during the remainder of the summer, they will probably become the parents of very fine fruit. This is, however, in the future.

What in our eyes is of most practical interest is the establishment of the fact, upon which we have so long and often insisted, that a high night temperature in forcing-houses is a fatal mistake. Good gardeners are beginning to admit the correctness of this view in vineries; but they have doubted whether the principle could be applied to the pine apple, because it naturally grows in countries so much hotter than those occupied by the vine. But they forget the effect of radiation at night; they have not considered how low the temperature of even the tropics must often become near the surface of the ground, under the bright and cloudless skies of such regions; they have not recollected that ice is formed during the night in Bengal. The new experiment of Mr. Barnes has shown that what is true of the vine is equally true of the pine apple; for, notwithstanding the efficacy of a black surface, it is impossible that the temperature of the air round his pines should not have been much below 40° in the "frosty mornings" of which he speaks.

Another point is the excellent flavor of the fruit thus produced. To what was that owing? not to high temperature, nor to bright and long-continued sunshine, for we are told that the weather was stormy, with many dark sunless days. It was caused by the free access of air constantly passing over the leaves, incessantly feeding them on the one hand, and helping them on the other to elaborate their juices by the as incessant removal of their superfluous water. What a lesson is this to us all! What a condemnation of our vicious system of building glass-houses to be filled with stagnant air and vapor; of our miserable ventilation; of our barbarous flues; of our water-pipes and tanks, and the sluggish atmosphere which they warm. Let us even add what a triumph it is for the friends of Polmaise, demonstrating as it does the soundness of their views of the paramount importance of rapid currents of everchanging air. For ourselves, we are per-

fectly convinced that the day is at hand when the first question asked of an architect will be not how he proposes to heat a hothouse, but how he will manage to ventilate it. The costly and complicated machinery of hot-water apparatus will be only remembered as a folly, and the simple processes which combine a rapid distribution of heat with a rapid motion of air, will be universally employed. We may depend upon it, that, in nine cases out of ten, cold is much less dangerous than heat, and that half our bad cultivation is caused by a mistaken eagerness to keep plants in an artificial instead of natural condition.—(*Ib.* p. 467.)

Window flowers.—This is the season when those who do not possess greenhouses will see the reward of their care and labor in the blooming plants which have been tended by them in-doors. The dry air of sitting-rooms must be counteracted as much as possible by syringing, by exposure to gentle rains, and by admitting as much of the atmospheric air as can conveniently be done. Green fly may easily be kept down in small collections by picking and rubbing them off by the hand; or all the pots may be put into a frame closely covered up, and subjected to tobacco smoke. Do this in the evening and leave the plants till the morning, when they should receive a good watering by a fine rose or a syringe. Keep plants in pots moderately moist, without allowing water to remain in the saucers. By these means, and bringing in a succession as the former plants get shabby, a window may be made very interesting to the amateur, and an air of elegance and refinement be given to the dwelling.

Plants may now be cultivated in balconies, and on the stone in front of the window, so as to give a beautiful and attractive appearance to the exterior of the house. Fuchsias do admirably well for this purpose, as they will continue to bloom until the frosts of autumn disturb them, and require less care than most plants equally showy. Let strong healthy plants be potted in six inch pots, in a light rich soil, and let these pots be dropped into others just large enough to admit the space of about half an inch all round; the inserted pot standing on moss or leaf-mould until its brim is on a level with that of the pot containing it. By this little contrivance, the hottest suns will be unable to scorch the roots of the plants, they will retain moisture longer, and will flourish more luxuriantly. If a drooping variety of fuchsia is made to alternate with those of erect habit, a mass of bloom will be presented of great depth and richness. Other showy plants can, of course, be treated in the same way.

Take time by the forelock, and prepare for your collections next year, by purchasing or striking young plants. It requires some forethought to keep up a succession of window flowers without a greenhouse, but it may be done. Former papers have treated more fully on this subject, and to them the readers of the *Chronicle* are referred.—(*Ib.* p. 404.)

ART. II. Domestic Notices.

Hovey's Seedling Strawberry.—It has been gratifying to us to hear that our seedling has taken the prizes at nearly every horticultural exhibition in the

country; at the Genesee Valley Horticultural Society, the best quart of strawberries the first premium for Hovey's Seedling. At the Long Island Horticultural Society, Messrs. Winter received the prize for three quarts, which were "unexceptionably fine"; these were in competition with upwards of THIRTY other varieties, including BUIST'S PRIZE, NORTH'S VICTORY, TAYLOR'S SEEDLING, BLACK PRINCE, and others, which have been advertised as equal or superior to the seedling; and this, too, in Flushing, where our friends pride themselves upon their great collections, and the successful cultivation of this fruit. At the Utica Horticultural Society, "Mr. Wm. Walcott's Hovey's Seedlings were acknowledged, by common consent, to be the largest strawberries ever seen in this country, some of them measuring four and three quarters inches in circumference." At the Montreal Horticultural Society, "the competitors for the prize were numerous: a large basket of Hovey's Seedling, from J. Archbald, gardener to Jas. Savage, Esq., excited unusual admiration, and very deservedly received the first prize." At the American Agricultural Association, New York, D. W. Coit, Esq., of Norwich, Conn., received the first prize, in competition with a large number of varieties from Messrs. Prince & Co., of Flushing. We merely note these awards to show that a strawberry must be a *very good one* to compete with it, although it was raised *thirteen* years ago.—*Ed.*

Premiums for New Varieties of Strawberries and Raspberries.—The Cincinnati Horticultural Society have offered the sum of \$100 for a seedling strawberry, which shall "exceed the most our Seedling in average size," and, we presume, equal it in other respects. This we learn from the *Ohio Cultivator*, although we have seen no official report on the subject. When the report of the committee offering the premium comes to hand, we shall notice the particulars on which the award is to be made. The premium is to be given in 1850. The same sum (\$100) is also offered for the best seedling Raspberry.—*Ed.*

Burr's Seedling Strawberries.—Three years ago, Dr. Brinkle raised a great number of new seedling strawberries, and named and described some thirty or forty of them, many of which were stated to be much superior to Hovey's Seedling; but we believe not ONE of them has proved to be valuable. Mr. Burr, of Ohio, has, within a few years, raised a great number of varieties, several of which, the present year, he has named and offered for sale; he has also exhibited them before the Columbus and Cincinnati Horticultural Societies, and they have reported upon them as "remarkably fine." It is now nearly fourteen years since our two seedlings were produced, and although Col. Wilder, and Capt. Lovett, of Beverly, and other cultivators around Boston have raised *thousands* of seedlings within the last six years, they have not found ONE, which they consider worthy of a name, knowing that unless they excel the older kinds, there would be no real merit in their production. They are well aware that it is as easy to raise seedling strawberries of the size and quality of all the older kinds, as to raise any other seedling plants; but, in the present improved state of this delicious fruit, it would be useless to encumber our catalogues with such sorts.

Such may not, however, be the case with Mr. Burr's strawberries; we

hope he has succeeded in raising something finer than any we have yet had ; but our doubts are at once raised when he states, in his descriptions, that one kind "averages larger than any other known," and yet that it is only "four and a half inches in circumference," when it is well known that Hovey's Seedling, under ordinary treatment, measures FIVE AND A HALF. Another kind is stated to be so prolific as to have produced "thirty-five quarts on a bed six feet by twenty." Our seedling has produced twelve quarts on a bed two and a half feet by twelve, which is FORTY-EIGHT quarts on a bed six feet by twenty. We notice these things because Ross's Phœnix, Buist's Prize, Brinkle's Cushing, and various others have all been advertised as the finest sorts known.

That our amateur cultivators may know something of the merits of Mr. Burr's seedlings, we quote the names and descriptions, as drawn up by the Columbus Horticultural Society.—*Ed.*

1. OHIO MAMMOTH.—Fruit very large, averaging larger size than any other strawberries known ; shape rather long, conical, and somewhat angular ; color light red, flavor sweet and excellent ; foliage large, and plants vigorous, hardy, and productive ; flowers perfect, or staminate.—Produced from Burr's old Seedling and Hovey's.

2. NEW PINE.—Fruit large, color pale red, flavor very high aromatic, sweet and delicious ; very early and uncommonly productive ; plants vigorous and perfectly hardy ; flowers pistillate ; believed to be the best strawberry cultivated.—From Burr's and Hovey's.

3. RIVAL HUDSON.—Fruit of a dark and shining red color, resembling the Hudson of Cincinnati, except that the fruit and stem are longer ; flavor very rich and excellent ; plants hardy and very productive ; a very handsome and excellent variety for market, or domestic use ; flowers pistillate.—Produced by the old Hudson and Burr's.

4. COLUMBUS.—Fruit large, nearly round, of a beautiful dark color, and rich sweet flavor ; plants uncommonly prolific, and quite hardy ; flowers pistillate.—From Hovey's and Burr's.

5. SCIOTO.—Fruit of large size ; color light scarlet ; flavor rich, sweet, and delicious ; plants very productive, vigorous, and hardy ; pistillate.

6. SCARLET MELTING.—Fruit rather long, with a neck ; color bright red or scarlet ; flavor excellent ; flesh very tender, (melting readily in a dish with sugar,) consequently not suitable for transporting to market, though delicious for the table ; plants very productive, of rapid and vigorous growth, and hardy ; pistillate.

7. PROFUSION.—Fruit medium size or small ; flavor rich and sweet ; plants hardy, and a prodigious bearer,—two hundred perfect berries having been counted on a single plant ; pistillate.

8. LATE PROLIFIC.—Fruit of good size, largest berries measuring over three inches ; flavor rich and excellent. A very valuable variety owing to its lateness of ripening—being full ten days later than most other varieties—and its great productiveness—thirty-five quarts of the berries were picked from a bed six feet by twenty, which is equal to two and a quarter bushels to the rod ; plants uncommonly vigorous and hardy ; pistillate.

9. BURR'S OLD SEEDLING.—(Staminate,) maintains its high reputation, in this region, for productiveness and excellent flavor, and is found to be the best variety for planting contiguous to the pistillate varieties to ensure their productiveness.—(*Ohio Cultivator*.)

Pistillate Strawberry Plants not productive.—The two strawberry plants mentioned in my last, (p. 237), both flowered, but there never was any sign of a fruit while in my garden. I do not remember a season when they bore so well. I am doubtful whether what I got as your seedling and Keen's are not the same, as the leaves and fruit are exactly alike, while a few plants given me to try by Mr. Lewis R. Sams, as your seedling, imported direct from you by himself, are very different in both fruit and leaf. I have in cultivation two other kinds, the one a pistillate plant, with rather ovate leaves, fruit firm fleshed, sometimes with a whitish neck, conical shaped, and comparatively free from acid, and very productive. The other, a perfect flowering plant, bearing a small crop of small fruit, early, and afterwards a fair crop of large cockscomb-shaped fruit, soft fleshed, rather acid, but very high flavored, bearing for about one month after Keen's seedling. Both these varieties, but especially the latter, are very vigorous growers, and the latter variety bears its fruit upon a stalk that shoots above the leaves when in flower, but drops under them when the fruit grows. Can you tell me the names of these varieties? They are common here, I believe. We have the promise of little fruit hereabouts this summer. We had very severe cold on the 8th January last, a black frost or ice in April, (about one month later than common,) then a drought, followed, for about a month past, by frequent and heavy rains.—*Yours, R. Chisholm, Beaufort, S. C., June 25, 1847.* [It would be rather difficult to name the kinds of Strawberries which our correspondent alludes to merely from his description. The experiment with the pistillate, or imperfect flowering strawberries, is only one among the many which, when *fairly* tried, settle the question about the change from the normal form.—*Ed.*]

Two new Seedling Cherries.—Our correspondent, Dr. Wendell, of Albany, has raised two new seedling cherries, as will be seen by a report of the Albany Horticultural Society in another page. We are happy to see attention given to the cherry, for we believe there is room for great improvement in this fine fruit. Undoubtedly Dr. Wendell will send us some account of his two seedlings.—*Ed.*

Albany and Rensselaer Horticultural Society.—By the kindness of the Secretary of this new and flourishing society, we have been favored with detailed reports of the two exhibitions held on the 3d and 24th of July.

We regret that we have not room to give them entire; but, as they would occupy eight or ten pages, we are obliged to condense them so as to give only the most interesting portions of the reports.

The first exhibition of the society was held at the Geological Rooms, in the city of Albany, on Saturday, the 3d of July.

GREENHOUSE PLANTS AND FLOWERS.—The committee on greenhouse plants and flowers report, that the first premium on the six best greenhouse plants is due to L. Menand, of Watervliet, \$2. The second to James

Wilson, of Albany, \$1. James Wilson exhibited the largest variety of greenhouse plants.

For the best twenty-five varieties of hardy roses, the committee award the first premium to James Wilson, \$2; and for the second best variety of roses, to Herman Wendell, \$1. For the greatest and best variety of hardy roses, a premium of \$2, to James Wilson. A premium of \$2 is awarded to J. Dingwall for a beautiful variety of flowers, consisting of verbenas, picotees, and carnations.

The committee would specially commend Mr. William Cooper for the beautiful bouquet of wild flowers, of fifteen varieties; and they trust that a very large increase in this department will be made, from the wild flowers of our hills and valleys.

The chairman of the committee, W. Newcomb, having retired, the residue of the committee would report that their chairman presented a large and good assortment of annual, biennial, and perennial flowers, together with dahlias and roses, and that your committee would report that Mr. Newcomb has exhibited the best and largest variety of annual and herbaceous, biennial and perennial flowers.

The committee regret that they were not enabled to make a more full and complete report, owing to the want of time and the late hour of exhibition; but, upon the whole, your committee would say, that the great number and variety of roses and beautiful flowers exhibited does great credit to the taste and enterprise of the exhibitors, and that they are specially deserving of the thanks of the society.—WM. NEWCOMB, *Chairman*.

FLORAL ORNAMENTS.—The committee on floral designs and bouquets respectfully report, that, after a close examination, they have concluded to award to Nathan B. Warren, of Troy, for the best round bouquet for vase, the first premium of \$2. To E. P. Prentice, of Mount Hope, the second premium of \$1. For the best pair of hand bouquets, one flat and one round, to James Wilson, of Albany, the first premium of \$2; and to Dr. Herman Wendell, the second premium of \$1.—S. E. WARREN, *Chairman*.

CUT FLOWERS, &c.—The principal exhibitors of flowers were Wm. Newcomb, Dr. Wendell, William Cooper, Joel Rathbone, E. P. Prentice, John Dingwall, James Wilson, and others. Dr. Wendell exhibited twenty varieties of verbenas, including Dove-eye, Suzette, Rosy Cluster, and Caroline.

FRUITS.—The committee on fruits report, that there were exhibited by Dr. Herman Wendell, of Albany, ten varieties of cherries, viz: May Duke, Florence, Black Heart, Napoleon Bigarreau, Arch Duke, Black Tartarian, Yellow Spanish or Bigarreau, Bigarreau Colouer de Chair, Wendell's Mottled Bigarreau (a seedling), and Carnation Bigarreau (a seedling); and three varieties of strawberries: Hovey's Seedling, Hovey's Boston Pine, Ross's Phoenix.

By D. T. Vail, of Hill Top, Mount Ida, Troy, six varieties of cherries, viz: Black Heart, Black Tartarian, White Heart, Ox Heart, May Duke, Morello. By A. Walsh, Lansinburgh, three varieties of cherries: White Tartarian, May Duke, and Morello; one variety of gooseberries. By James Hall, Albany, two varieties of cherries: Ox Heart, and May Duke.

By Isaac Dennison, Albany, four varieties of cherries : Black Heart, Ox Heart Bigarreau, China Heart, Black Tartarian ; one variety of gooseberries. By Frederick Keisel, two varieties of cherries : Red Heart, White Heart.

By John Meads, a seedling cherry, raised from dried fruit. By Dr. Alden March, very superior Black Tartarian. By James Wilson, Albany, one variety of gooseberries, and four of strawberries : Bishop's Range, Myatt's Eliza, Victoria, Swainstone's Seedling. By John W. Haydock, Greenbush, Hovey's Seedling strawberries. By E. P. Prentice, Mount Hope, Hovey's Seedling strawberry. By J. A. Kanouse, Albany, Ross's Phoenix, and one name unknown. By D. D. T. Moon, Watervliet, Hovey's Seedlings. By Joel Rathbone, Kenwood, five varieties of gooseberries.

The committee award the first premium on cherries to Dr. Herman Wendell, Albany, for the largest number of varieties of best character ; the second to D. T. Vail, of Troy.

The first premium on strawberries to James Wilson, for Swainstone's Seedling. The second to J. W. Haydock, Greenbush, for Hovey's Seedling.

In awarding the premium on strawberries, the committee decided on the flavor, not the size of the berry. The Hovey Seedlings were the largest berries, but, in the opinion of the committee, not of the finest flavor.—J. M. WARD, *Chairman*.

VEGETABLES.—The committee on vegetables report, that Alex. Walsh, of Lansingburgh, is entitled to the premium of \$2 for the earliest and best potatoes,—Ash-leafed Kidneys. Mr. Walsh also exhibited a fine specimen of Sea Kale, and Windsor beans. Henry Vail, of Troy, is entitled to premium for best Marrow Fat peas, \$2 ; and for twelve best beets, \$2. To Peter Chapman, of Greenbush, is awarded a premium of \$2 for best six heads of celery ; and to Frederick Keisel, six heads nearly, if not equal to Mr. Chapman's, a premium of \$2. V. P. Down, of Greenbush, presented some very fine large cucumbers, which are entitled to special commendation. James Wilson exhibited some fine Ross's early potatoes, scarcely if at all inferior to Mr. Walsh's, quite equal in size but not in maturity. Dr. Herman Wendell exhibited two fine heads of lettuce, and some fine cucumbers.

The chairman, Mr. Prentice, having retired, the residue of the committee examined a variety of articles presented by Mr. Prentice, all of superior excellence, and they award him a premium for best cauliflowers, \$2 ; do. cabbages, \$2 ; do. rhubarb, \$2 ; all of which were very superior and entitled to special notice. The rhubarb of the Giant species was of a size seldom equalled.

Mr. Prentice also exhibited some of Hall's early potatoes, equal in size to those of Mr. Walsh, but not quite as perfectly matured ; and very fine specimens of onions, peas, and beets.

The committee are gratified at the spirit manifested at this opening exhibition, and trust that the number of contributors will increase, and a new impulse be given to the cultivation of choice vegetables.—E. P. PRENTICE, *Chairman*.

Dr. Herman Wendell presented to the society, a Treatise on Gardening and Fruits, published London, 1718; also, Downing's Fruit and Fruit Trees, and Johnson's Dictionary of Modern Gardening. Thanks of society tendered to donor.—B. W. JOHNSON, *Secretary*.

Exhibition of the 24th July.—The second exhibition of the society was held at the Court House, in Troy, on the 24th July.

The committee on fruit report, that there were exhibited by Henry Vail, of Hill Top, Mount Ida, Troy, seven varieties of gooseberries, viz: Woodward's White, Smith Hepburn's Green Prolific, Winman's Green, Ocean, Massy's Heart of Oak, White Hardy, and Red Spine; four varieties of raspberries, viz: Franconia, New Red Antwerp, Old Red Antwerp, White Antwerp; four varieties of currants, viz: Champagne, Red Dutch, New White Dutch, and Black English; Madeleine or Citron des Carmes pears; Sweet Bough apples.

Dr. Herman Wendell, Albany, (not entered for competition,) three varieties of cherries, viz: Wendell's Mottled Bigarreau, Transparent Guigne, and Black Morello; four varieties of currants: Red Dutch, White Dutch, Champagne Pink, and English Black; two varieties of gooseberries, viz: Roaring Lion, and White Smith; ripe tart Bough apples. Wm. Newcomb, Pittstown, three varieties of gooseberries, and two of currants. S. E. Warren, Troy, twelve varieties of gooseberries, viz: Lord Crewe, Fox Hunter, Queen Caroline, Eagle, White Smith, Sulphur, Husbandman, Sir Sidney, Eliza, Ashton Seedling, Overall, Roaring Lion; four varieties of currants: English Black, Red Dutch, Champagne, White Dutch; Red Antwerp raspberries

A. Walsh, Lansingburgh, Crimson, Yellow, and White gooseberries; Black and Red currants. Nathan G. Warren, Troy, four varieties of currants: Black English, Red Dutch, Champagne, and White Dutch; two varieties of raspberries: Red and White Antwerp. V. P. Down, Greenbush, White Smith gooseberries; Improved Red Antwerp, and White Antwerp raspberries. James Wilson, Albany, four varieties of currants, viz: May's Victoria, Knight's Sweet, White Grape, and Red Dutch; May's Giant raspberries, and two plates of different varieties of gooseberries, not named.

Joel Rathbone, Kenwood, Albany county, five varieties of gooseberries, not named; one variety Red Antwerp raspberries. E. P. Prentice, Mount Hope, Albany county, ripe Early Harvest apples. John V. Fassett, Troy, White Smith gooseberries. John W. Haydock, Greenbush, near Troy, White Grape currants. Amos Briggs, Schaghticoke, Rens. county, White and Red Dutch currants.

Premiums awarded as follows: *Currants*.—1st, to J. W. Haydock, White Grape, \$2; 2d, James Wilson, Knight's Sweet, \$1. *Gooseberries*.—1st, S. E. Warren, Lord Crewe, \$2; 2d, Henry Vail, Green Walnut, \$1. *Raspberries*.—1st, Henry Vail, Franconia, \$2; 2d, V. P. Down, Improved Red Antwerp, \$1.—HERMAN WENDELL, *Chairman*.

GREENHOUSE PLANTS AND FLOWERS.—The committee on greenhouse plants and flowers report, that Louis Menand, Watervliet, is entitled to first

premium \$2, on greenhouse plants, and that he exhibited the greatest variety of greenhouse plants. Mrs. Day O. Kellogg, Troy, exhibited a beautiful *Ardisia Philadelphia*. Dr. Herman Wendell exhibited sixteen varieties of phloxes, viz: *Auguste*, *Madam Renard*, *Fleur de Marie*, *Noi Polkii*, *Grato*, *Anais Chauviere*, *Picta*, *Lawrencia*, *Van Houttei*, *Tendre Emelie*, *Princesse Marianne*, *Alcarda*, *Suaveolens*, *Lilach*, *Superbissima*, *Grandissima Nova*; also, roses and dahlias, and the following twelve varieties of new and beautiful verbenas, viz: *Dove Eye*, *Rosy Cluster*, *Suzette*, *Roseum*, *Monk's Purple*, *Buist's New Blue*, *Feast's White*, *Bicolor grandiflora*, *Majestica*, *Polk*, *Eclipse*, and *Caroline*.

Wm. Newcomb exhibited thirty named varieties of Dahlias, and thirty-six unnamed do. in bouquets, and a large variety unnamed; one round bouquet, with a large variety of choice flowers; one flat do; a large collection of annual flowers, and biennial and perennial.

James Wilson, Albany, thirty-six choice varieties of Dahlias not named.

Wm Buswell, Troy, three varieties of Dahlias.

The Chairman of the Committee retired, and the residue of the Committee report that they recommend a premium of \$2 to Wm. Newcomb for a very large and best variety of Dahlias named and unnamed; also a premium of \$1 for beautiful flat bouquet of cut flowers. He also exhibited the greatest variety of annual, biennial, and perennial flowers.

Stephen E. Warren, of Troy, exhibited a beautiful floral ornament, tastefully arranged.—WM. NEWCOMB, *Chairman*.

FLORAL ORNAMENTS.—The Committee have been much gratified with the fine display of Floral Ornaments at this, the second exhibition of the Society. Fifteen vase bouquets were offered for competition. The first premium was awarded to Mrs. D. Thomas Vail, of Hill Top, Troy. The Chairman retired, being interested, when Amos Briggs of Schaghticoke was appointed Chairman. To Joel Rathbone, of Albany, the second premium was awarded. To Dr. Herman Wendell, of Albany, the first premium for best pair of hand bouquets, one of which contained twelve varieties of Verbenas. Wm Newcomb, of Pittstown, offered for exhibition three designs, mostly composed of Dahlias, of which there were seventy-six varieties. Mr. Newcomb is entitled to much credit for the interest he has taken in the culture of flowers.

The Committee think Mrs. Charles H. Merritt deserves at least the thanks of the Society for five vase bouquets, containing many fine balsams most tastefully arranged.

James Wilson, of Albany, exhibited a bouquet of mixed rockets, very showy. E. P. Prentice, of Mount Hope, many beautiful flowers. Allen Clarke, of Lansingburgh, a large collection of flowers, among which the *Abutilon* meekly raised its head, one of Nature's gems, raised on Flora's fairy ground.—S. E. WARREN, *Chairman*.

VEGETABLES.—Premiums awarded:—

Beets.—Twelve earliest and best blood, E. P. Prentice, \$2. String Beans.—Dr. Herman Wendell, \$1. Cucumbers.—V. P. Down, best.

brace, \$2. Six fine Roman Cucumbers, do., special premium, \$1. Squashes.—Joel Rathbone, \$2. Tomatoes.—Best six, V. P. Down, \$2. Second do., E. P. Prentice, \$1.

DISCRETIONARY.—The Committee recommend, as worthy of special notice and commendation :—

Some very fine onions by Wm. Newcomb. Superior mountain June potatoes, John H. Willard. Winter squash, James Montgomery, Troy. Choice celery, by the President, Joel Rathbone. Very fine onions, E. P. Prentice. Oxheart Cabbage, V. P. Down. Seedling cherries, very fine flavored, Dr. Herman Wendell. Very large mountain June potatoes, rhubarb, beets, onions, by Isaac Lovejoy. Alexander Walsh, a variety of vegetables, fruits, flowers, garden roots, &c., tastefully arranged, attracted much notice. A premium for collection awarded of \$2.—HENRY VAIL, *Chairman*.—*Yours*, B. P. JOHNSON, *Secretary*.

Seeds of Grasses.—I send a few more seeds of the grass which I once sent you as the Muskeet, but Mr. Camak was misinformed about it. It is not the Muskeet of the South-western prairies, but has been cultivated for some years in southern gardens under the name of South American Velvet Grass. It proves hardy here, and a tuft or two of it tastefully placed in a flower bed, highly ornamental, especially when contrasting its whitish spikes with its dark green leaves. These leaves are exceedingly soft to the touch.—*Yours*, M. A. W., *Athens, Ga., July, 1847*.

Cincinnati Horticultural Society.—Among the many Reports of Exhibitions which have been kindly sent us by our correspondents, but which we are not able to publish from their length, is one of the Cincinnati Horticultural Society. Our correspondent writes as follows:—

“Our spring exhibition went off very well, as you will see by the enclosed report. Your old Seedling Strawberry continues to maintain its high character and popularity. I noticed they were selling in market yesterday, [June 4], at 15 cents per quart, while the Hudson and other kinds sold at 7 to 10 cents. The sale of all kinds now averages 200 bushels per day in our different markets! It would amuse you to hear the German hucksters recommending “Ho-vey’s Shtrawberries; firscht-rate.”—*Yours*, J. B. R., *Cincinnati, June 5, 1847*.

As Cincinnati is considered the great market of the Union for the Strawberry, certainly in quantity, if not in quality, we make room for the following account of the exhibition of strawberries, as it will tend to show what varieties are principally cultivated, where some writers still insist that the old Hudson, so called, is the best: Mr. Carter has shown what the fertile soil of Kentucky will do when accompanied with proper treatment. We shall send him the first number of our *Fruits of America*, to show that we highly appreciate his skill in the cultivation of the Strawberry :—

“A. H. ERNST exhibited 12 different kinds of Strawberries, 25 elegant Bouquets, with a liberal supply of Evergreens, &c.

From Mrs. W. P. RESOR, Hovey’s Seedling Strawberry, with a profusion of elegant cut flowers and Bouquets.

From S. S. JACKSON, several baskets of cut flowers, superb bouquets,

Hovey's Strawberries, &c. ; besides 14 neat bouquets from his sons, Masters JOHN and ISAAC.

DR. MOSHER exhibited a dish of Hovey's Strawberries, several Bouquets, and a pot of the famous Muskeet grass, the seed of which was brought by him from the prairies of Western Texas, considered there one of the most nutritious grasses.

S. M. CARTER, of Kentucky, sent over handsome specimens of Hovey's Strawberries, and a plant of the same (potted,) which contained 50 berries, 30 of them being ripe."—*Cin. Gaz.*

Horticultural Exhibitions of the American Agricultural Association.—At the meetings held on the 19th of May and the 23d of June last, premiums were awarded to the following persons :—

EXHIBITION ON MAY 19TH.

To Mr. James Hogg, for the best set of bridal bouquets.

To Mr. John Quinn, gardener to N. J. Becar, Esq., for the best six pelargoniums, best six calceolarias, and the best seedling greenhouse plant (a camellia).

To Mr. Isaac Buchanan, florist, for the best six roses in pots, the best six fuchsias, and the best three cactuses.

To Messrs. Ball and Hawser, florists, for the second best seedling greenhouse plants (azaleas).

To ——— Cummings, Esq., Williamsburgh, for the best twelve pansies.

To Mr. Richard Brewster, gardener to J. F. Penniman, Esq., a discretionary premium for pelargoniums.

To Mr. Wm. Russell, florist, discretionary premiums for seedling pelargoniums, cinerarias, and hardy azaleas.

To Mr. J. Woods, gardener to P. Perit, Esq., a discretionary premium for well grown greenhouse plants.

To Mr. Dummett, gardener to ——— Halsey, Esq., Astoria, for the best strawberries, and the best peas.

To Mrs. Henry Parish, a discretionary premium for very fine lemons.

To Mr. Routh, gardener to J. C. Beekman, Esq., for the best potatoes, the best two heads of cauliflowers, the best brace of cucumbers, and a discretionary premium for rhubarb.

To Mr. John Briell, for the best six stalks of rhubarb, and the best three heads of lettuce.

To Mr. F. Hayward, gardener to Archibald Russell, Esq., Esopus, for the best blanched Sea Kale.

To John White, gardener to R. K. Delafield, Esq., for the best mushrooms.

To Mr. James Dooriss, gardener to J. J. Jones, Esq., a discretionary premium for cucumbers.

EXHIBITION ON JUNE 23D.

To Mr. G. C. Thorborn, for the best pair of parlor bouquets, and the best pair of hand bouquets.

To Mr. Charles More, for the second best pair of parlor bouquets.

To Mr. Joseph Monk, for the second best pair of hand bouquets, and for the best display of climbing roses.

To Mr. George Saul, gardener to Shepherd Knapp, Esq., for the best basket of flowers, and for the best bush beans.

To Mr. Kennedy, gardener to S. T. Jones, Esq., for the second best basket of flowers.

To D. W. Coit, Esq., Norwich, Conn., for the best strawberries.

To Mr. Wm. R. Prince, for the second best strawberries, the largest collection of strawberries, and for the best twenty hardy roses.

To Mr. H. Van Horn, for the best Morello cherries.

To Wm. Armstrong, gardener to H. Delafield, Esq., for the best gooseberries.

To Mr. Dummett, gardener to — Halsey, Esq., for the best apricots, for the best turnips, and a discretionary premium for melons, (one weighing 9 lbs. 13 oz.)

To Mrs. W. C. H. Waddell, a discretionary premium for lemons.

To Mr. Charles Doran, gardener to E. Holbrook, Esq., for the best six fuchsias, for the best display of greenhouse plants, and a discretionary premium for a fine display of roses.

To Mr. John Quinn, gardener to N. J. Becar, Esq., for the best ten perpetual roses.

To Messrs. Parsons & Co., for the second best perpetual roses.

To Mr. Wm. Russell, florist, a discretionary premium for a beautiful display of seedling climbing roses.

To Messrs. Phelan & Sons, florists, a discretionary premium for a fine display of roses.

To Mr. J. B. Mantel, a discretionary premium for a fine display of roses.

To Messrs. Ball & Hawser, for a fine display of seedling roses.

To Mr. Clovis Le Roy, gardener to Dr. Stevens, for the best cauliflowers.

To Mr. McNamara, gardener to — Pillot, Esq., for the second best cauliflowers, and for the best artichokes.

To Mr. John Buill, for the best early cabbage and for the best lettuce.

To Mr. Joseph Cudlipp, for the best beets.

To Mr. Routh, gardener to J. C. Beekman, Esq., for the best peas and for the best potatoes. By order of the Executive Committee: JAMES HOGG, Sec. *pro tem.*

[We regret that, in the above report, the names of the flowers and fruits, which obtained the premiums, are not given. It is of very little interest to know *who*, but it is very important to know *what*, takes the premium. We trust, in future reports, the Society will see that the names of the successful flowers and fruits have the names given.—*Ed.*]

The Nineteenth Annual Exhibition of the Massachusetts Horticultural Society will be held at the Society's Hall, on Wednesday, Thursday, and Friday, September 22, 23, and 24.—*Ed.*

ART. III. *Massachusetts Horticultural Society.*

Saturday, July 3d, 1846.—A stated monthly meeting of the Society was held to-day,—the President in the chair.

The Finance Committee reported that they had sold ten shares of stock in the Shoe & Leather Dealers' Bank, which produced the sum of \$ 1067 18. ONE THOUSAND dollars of this had been invested in the Massachusetts Hospital Life Insurance Co., on the 15th of May last, being the LYMAN FUND. A certificate of deposit had been placed in the hands of the Treasurer, and the balance, \$67 18, paid into the Treasury. The Report was accepted.

The following members were elected :—Nathaniel Dana, C. B. Dana, and John N. Turner, E. C. Emerson, James P. Oliver, and R. A. Richards, Boston.

Adjourned two weeks to July 17th.

[In our last report, we omitted to give the doings of the meeting on the 19th of June. At that meeting, the Fruit Committee made a Report on the Special Prize List for Fruits, as follows] :—

Early in the year 1846, a gentleman in the vicinity of Boston, desirous of promoting and advancing the science of Horticulture, placed at the disposal of the Massachusetts Horticultural Society, Three Hundred Dollars, to be expended at the rate of one hundred dollars per annum for three consecutive years, in special premiums for fruit, viz. : Twenty premiums of five dollars each to be awarded by the Committee on Fruits, under the direction of the Society, with the understanding that the Committee should publish a special report, stating the kinds and varieties of fruit to which the premiums were awarded, together with the names and residences of the cultivators. In accordance with the wish and desire of the donor, the Committee have awarded the following prizes to the finest specimens and best varieties of fruit which have been exhibited at the Hall of the Society during the past season, 1847.

[This Report has already been given in full, page 85.—*Ed.*]

To such other varieties of Fruit as may be presented at the Hall of the Society during the years 1847 and '8, and which shall prove equal or superior, in all respects, to the varieties which now constitute the prize list will be awarded the prizes under this donation, and they will be added to this list, but, as long as the above varieties shall continue to prove superior to all other kinds exhibited at the Hall, they will be considered as entitled to the special prizes, and will be designated in future reports as having received the prize for one, two, or three years, the object of the donor being to ascertain, and make known through the Society, the best varieties of Cherries, Plums, and Peaches which may have been exhibited before the Society for three consecutive years. Respectfully submitted.—S. WALKER, *Chairman*.

The above Report was accepted.

The following persons were elected members :—Anson Dexter, Edward Sayers, Boston ; H. H. Crapo, New Bedford ; Charles A. Hewins, Roxbury ; Charles Spring, Brighton ; Thomas Willott, Roxbury ; Royal Douglass, Cambridge ; Benjamin W. Balch, Dedham.

Exhibited.—**FLOWERS:** From the President of the Society, ten plants of new Gladioli, as follows:—Duc d'Orleans, Lemanhii, Christianus No. 1, insignis, Wilhelmus, Spærshill, pyramidalis, Dohreii, Paulonia, and Queen Victoria; some of them very beautiful; also, new scarlet geraniums, viz., Prince Albert, Cyrus, Queen, Shrubland superb, Brighton Hero, Gen. Tom Thumb, and Goliah, and cut roses of various kinds. From J. L. L. F. Warren, ten plants in pots, including *Rondelètia speciosa*, *Erica ventricosa alba*, *Ixora rosea*, *Gardènia radicans*, &c.; also, one round vase bouquet, one flat do., six flat hand do., and two round hand do.; a fine display of Prairie Roses, and cut flowers in variety.

From Messrs. Hovey & Co., one large circular bouquet, two very fine large flat do., and six hand do.; also a great variety of fine Roses, and other cut flowers. From John Kenrick, a fine flower of *Magnolia macrophylla*. From J. E. Teschemacher, a plant of *Hæmanthus tenuifolius*, a rare and very beautiful flower. From Joseph Breck & Co., one large circular bouquet; Prairie and other Roses; Pinks; and a great variety of perennial flowers, including Van Houtte's phlox. Bouquets and cut flowers from S. Needham, A. Aspinwall, W. Kenrick, S. Walker, P. Barnes, A. Bowditch, W. Mellar, B. V. French, and Messrs. Winships.

Premiums were awarded as follows:—

PLANTS IN POTS.—For the best six plants, to J. L. L. F. Warren, \$2.

BOUQUETS, &c.—For the best six hand bouquets, to Messrs. Hovey & Co., \$2.

For the second best, to Azell Bowditch, \$1.

For the best pair flat Mantel bouquets, to Hovey & Co., \$2.

For the second best, to Winships, \$1.

For the best round bouquet, to Hovey & Co., \$2.

For the second best, to J. L. L. F. Warren, \$1.

PRAIRIE ROSES.—For the best display, to Samuel Walker, of \$4.

For the second best, to Messrs. Winship, 3.

GRATUITIES.—To M. P. Wilder, for ten new varieties of Gladioli, \$5.

To J. E. Teschemacher, for a fine plant of *Hæmanthus tenuifolius*, \$3.

FRUIT: The exhibition of Strawberries was one of the finest we have ever witnessed, and presented a marked contrast with the display a few years since. The specimens of Hovey's Seedling and Boston Pine, of which the display was mostly composed, were the largest which have ever been seen, one basket of about four quarts by Mr. Richardson being filled with berries from five to five and a half inches in diameter. A variety of seedlings were shown, but none of them of any great merit.

From the President of the Society, a few specimens of Alice Maud, and Jenny's seedling, and one truss of Lizzie Randolph, one of Dr. Brinkle's seedlings, having upon it five or six berries of very ordinary appearance and size. From Josiah Richardson, two large baskets of Boston Pine, very fine, Swainstone, Richardson's Seedlings, Nos. 1, 2, 3, 4, and 5, and the most magnificent basket of Hovey's Seedling, containing about four quarts, which we ever saw; six of the berries weighed three ounces and a half.

From Isaac Fay, Fay's Seedling, of good size. From Otis Johnson, Hovey's Seedling strawberries, and beautiful specimens of Cooledge's Favorite peaches. From W. T. G. Morton, M. D., Hovey's Seedling.

From Messrs. Hovey & Co., Hovey's Seedling and Boston Pine strawberries. From E. Bowen, Lynn, Early White Heart cherries? From J. L. L. F. Warren, Early White Heart cherries, (?) and Swainstone Seedling, Jenney's Seedling, Prince Albert, Stoddard's Pine, British Queen, White Wood, (beautiful specimens,) and Hovey's Seedling strawberries. From John Fisk Allen, five varieties of Grapes; black Figs; and three varieties of peaches, viz., Royal George, (fine,) Grosse Mignonne of New Jersey, ? (small,) and Hoffman's Favorite; also Black Tartarean and Elton cherries. From Samuel Downer, Jr., Cooledge's Favorite peaches, and fine specimens of Hovey's Seedling strawberries. From Samuel Walker, of Roxbury, Seedling Wood strawberries.

July 10th. Exhibited.—FLOWERS: From the President of the Society, three new phloxes, viz., Annais Chauviere, similar to Œil de Lynx, but more delicate; Augusta and Delecta; also Prairie and other Roses. From T. Needham, a fine plant of *Buddlèa Lindleyana*; and cut flowers of *Phlox Van Houtteii*, very fine. From Jos. Breck & Co., a fine lot of perennial plants, including fine specimens of *Delphinium Barlowii*. From J. Thomas, six plants of the buff, white, and orange *Thunbergias*.

From Messrs. Hovey & Co., Ten kinds of Perpetual Roses, including some new and fine sorts, viz., Queen of the Prairie, Perpetual Pink, Superba, Eva Corinne, Anne Maria, Jane, Pallida, Miss Gunnell, Pride of Washington, and Triumphant; also the following Picotees and Carnations: Duke of Newcastle, Princess Victoria, Lady Peel, Lady Campbell, Meteor, Victoria, Chiswell Beauty, &c.; also two new seedling picotees, six hand bouquets, two table bouquets, one round bouquet, and a plant of the beautiful new *Achimenes patens*. From J. L. L. F. Warren, six plants, viz., *Zamia elephántipes*, *Gardènia radicans*, *Anigozanthus coccineus*, *Solys heterophylla*, *Echinocactus multiplex*, and *Mammillaria* sp.; also bouquets and cut flowers. Bouquets, dahlias, &c., from Messrs. Winship, A. Bowditch, James Nugent, P. Barnes, W. Kenrick, W. Mellar, and A. Aspinwall.

Premiums were awarded as follows:—

BOUQUETS.—For the best six hand bouquets, to A. Bowditch, \$2.

For the next best, to J. L. L. F. Warren, \$1.

For the best pair of mantel bouquets, to Messrs. Winship, \$2.

For the next best, to J. Thomas, \$1.

For the best round pyramidal bouquet, to Messrs. Hovey & Co., \$2.

For the second best, to J. Thomas, \$1.

GRATUITIES—For seven plants of *Thunbergias*, to J. Thomas, \$2.

For a fine plant of *Buddlèa Lindleyana*, to T. Needham, \$1.

For *Echinocactus multiplex* in bloom, to J. L. L. F. Warren, \$1.

FRUIT.—From the President of the Society, Black Eagle and Bigarreau cherries. From O. Johnson, Bigarreau Colouer de Chair, Bigarreau, Sparhawk's Honeyheart and Black Tartarian cherries, fine specimens; also Cooledge's Favorite peaches, and British Queen, Prince Albert and Alice

Maud strawberries. From F. W. Macondry, Cooledge's Favorite peaches. From Jos. Richardson, Black Tartarian cherries; also Hovey's Seedling, Deptford Pine, Prince Albert, and Richardson's Seedlings, Nos. 1 and 2. From J. F. Allen, seven varieties of Grapes, and Black Figs.

Messrs. Hovey & Co. exhibited Myatt's new Hautbois Strawberry, one of the most delicious of this class which has been produced; the plants having been obtained of Mr. Myatt, in 1844; also Buist's Prize, Deptford Pine, Alice Maud, and Hovey's Seedling. From Capt. Lovett, Prolific Hautbois and Hovey's Seedling strawberries. From P. Barnes, Bigarreau cherries. From Isaac Fay, Seedling strawberries, which the Committee consider "large and handsome, but they lack the essential quality of a good strawberry, viz., delicious flavor"; White and Red Wood Strawberries from J. Owen and J. L. L. F. Warren. In deciding the qualities of new Seedling strawberries, the Committee used Hovey's Seedling as the Standard. We had the opportunity of tasting the various Seedlings presented, but none of them can be considered as having any remarkable qualities.

July 17.—An adjourned meeting of the Society was held to-day,—the President in the Chair.

A delegation of three members was appointed to attend the next annual Exhibition of the Pennsylvania Horticultural Society, and extend the invitation to them to attend the coming Exhibition of the Massachusetts Horticultural Society. Messrs. M. P. Wilder, B. V. French, and S. Walker were chosen.

William H. Parker was elected a member.

Adjourned two weeks to August 7.

Exhibited.—FLOWERS: From the President of the Society, four Seedling Japan Lilies, resembling the *L. speciosum*, but not so dark. From Messrs. Winship, a variety of shrubs and trees, such as *Ulmus variegata*, *crispa*, and *vinifolia*, *Betula fasciata*, *pendula*, &c.; also bouquets and cut flowers. From J. Thomas, plants of *Achimenes longiflora*, *Gardenia radicans*, and a species of *Dendrobium*. From Dr. C. F. Chaplin, Cambridgeport, very fine double China Pinks.

Messrs. Hovey & Co. exhibited several very large specimens of Japan lilies. One plant of *L. lancifolium album* had five main stems, and upwards of thirty buds and flowers; one of *L. rubrum* (or *speciosum*) had fourteen buds and flowers, and a most magnificent object; *Achimenes picta*, *grandiflora* and *patens*, (new); *Nuttallia grandiflora*, *Platycodon grandiflorum* and *Fuchsia Nymph*; also ten varieties of fine carnations and pictées, in all upwards of 80 blooms, six hand bouquets, two table bouquets, and one round bouquet, carnations, cut flowers, dahlias, &c., from J. Breck & Co., N. Stetson, J. L. L. F. Warren, J. Nugent, W. Mellor, S. R. Johnson, A. Bowditch, P. Barnes, and W. Quant.

The award of premiums was as follows:—

BOUQUETS.—For the best six hand bouquets, to Hovey & Co., \$2.

For the second best, to A. Bowditch, \$1.

A gratuity for six do., to J. Nugent, \$1.

For the best pair of mantel bouquets, to Messrs. Winship \$2.

For the second best do., to Hovey & Co., \$1.

For the best large oval bouquet, to William Quant, \$2.

For the second best do., to Hovey & Co., \$1.

PLANTS IN POTS.—For the best six plants, to John Thomas, \$2.

A gratuity to Hovey & Co. of \$5.

CARNATIONS AND PICOTÉES.—For the best ten varieties of flowers, to Hovey & Co., \$5.

For the second best, to S. R. Johnson, \$4.

A gratuity to Hovey & Co., for the best display.

A gratuity to Parker Barnes, for fine seedlings, of 2.

DOUBLE HOLLYHOCKS.—For the best display, to Messrs. Winship, \$2.

FRUIT.—From J. F. Allen, ten varieties of Grapes, including some good specimens of Wilmot's Black Hamburgh, and a fine cluster of the White Nice; also fine peaches. From Messrs. Hovey & Co., very fine specimens of Fastolf raspberries. From Messrs. Hyde, a seedling cherry, somewhat resembling the Black Eagle. From J. S. Sleeper, a seedling cherry, similar to the Downer. From O. Johnson, Black Tartarian, Florence, Napoleon Bigarreau, and Black Heart cherries. From S. Walker, fine specimens of the Downer cherry. New large black Bigarreau from Mrs. Walsh. From S. A. Walker, handsome red and white Dutch currants. N. Stetson, of Bridgewater, sent some very splendid Figs, large, but not quite ripe. From W. Quant, a fine Melon, and cherries called the Harback Cherry. From Messrs. Winship, handsome mulberries from the Canton or Alpine variety. From Capt. Macondry, very handsome peaches. From J. L. L. F. Warren, Franconia, Fastolf, and new Victoria raspberries and thimbleberries. From C. Newhall, Knevett's Giant raspberries. White and Red Dutch currants from Jos. Richardson, Anson Dexter, and W. & R. Williams. From B. V. French, fine Black Eagle cherries.

July 24th. Exhibited.—FLOWERS: From the President of the Society, fifty pots of seedling Japan Lilies, having from one to three blooms on each; also *Verónica Lindleyana*, new and pretty, and *V. speciosa*, both good specimens, and *Gladiolus gandavensis* and *Liebnitzii*. From W. Mellar, a fine plant of *Clivia nobilis*, and cut flowers. From Jos. Breck & Co., a quantity of cut flowers, including *Lilium longiflorum* and *chalcidonica*. W. Kenrick exhibited a pretty specimen of the double rose bramble, with small pink flowers; also bouquets. From Hovey & Co., plants of *Gloxinia Cartoni*, and a seedling, fuchsias, *Majestica*, *Enchantress*, and *Salter's 41*, and *Vinca alba*; also bouquets of various kinds, and carnations. From J. Thomas, *Achimenes longiflora*, a seedling *gloxinia*, and other plants and bouquets. From W. Quant, *Achimenes longiflora*, Japan lilies, *Vinca alba*, and *rosea*, and *Agapanthus umbellatus*. Cut flowers and bouquets from P. Barnes, S. R. Johnson, E. M. Richards, A. Bowditch, C. F. Chaplin, J. L. L. F. Warren, John Hovey, and Messrs. Winship.

Award of premiums:—

BOUQUETS AND DESIGNS.—For the best six hand bouquets, to Messrs. Hovey & Co., \$2.

For the second best, to Azell Bowditch, \$1.

For the best pyramidal bouquet, to Hovey & Co., \$2.

For the second best, to Mrs. Russell, \$1.

For the best pair of mantel bouquets, to Messrs. Winship, \$2.

For the second best, to Hovey & Co., \$1.

For the best design, a premium of \$2 to J. Thomas.

GRATUITIES.—To M. P. Wilder, \$5 for his fine display of Japan lilies, and \$3 for a fine plant of *Verónica Lindleyana*

To William Meller, a gratuity of \$3 for a plant of *Clivia nobilis*.

To Joseph Breck & Co., for a fine display of hollyhocks, \$3.

To P. Barnes, for fine hollyhocks, \$2.

PLANTS IN POTS.—For the best six, to William Quant, \$2.

For the second best six, to Hovey & Co., \$1.

FRUIT: From J. F. Allen, the following varieties of grapes: Black Portugal, Tottenham Park Muscat, White Frontignan, Black Hamburg, White Nice, Wilmot's Black Hamburg, and Zinfindal; also, Violet Hative, Nectarines, Yellow Rarieripe, Noblesse, and Crawford's late peaches, Sweet Montmorency cherries, two varieties of figs, and specimens of the Bergamot lime. Mr. Tudor exhibited from his gardens, at Nahant, a branch of the Amire Joannet pear, which contained two hundred and thirty-two pears, which were not, however, ripe; the branch measured but twenty-seven inches in length, and was literally covered with fruit. From C. Newhall, Knevet's Giant raspberries. From O. Johnson, Franconia raspberries. From H. Bailey, Franconia raspberries.

From Hovey & Co., the following grapes: Chasselas of Fontainebleau, Pitmaston White Cluster, Macready's Early White; also, Fastolff raspberries. From F. W. Macondry, fine specimens of peaches. From J. L. L. F. Warren, Franconia and Fastolff raspberries. From Anson Dexter, Franconia raspberries. From the Messrs. Winship, White Antwerp, and Franconia raspberries, and White thimbleberries. From Josiah Lovett, Knevet's Giant raspberries. S. R. Johnson, John Hovey, and J. G. Thurston, exhibited fine specimens of English gooseberries. From S. W. Cole, three varieties of apples, of last year's growth.

VEGETABLES: From Samuel Walker, water cress, raised from seed from the banks of the Isis. From A. D. Williams, new potatoes.

July 31. Exhibited.—FLOWERS: From J. Breck & Co., twelve varieties of fine double balsams, and twelve do. of fine double hollyhocks, and the following fine phloxes: Charles, white with blush eye; *Kermesina*, white with lilac eye; *Fleur de Marie*, white with violet purple eye; *Annais Chauviere*, pure white with a very distinct light purple eye, corolla large, round, and perfect,—a very beautiful variety; *Ciel de Lynx*, white with a purplish red eye, fine; *Grato*, rose white mottled with pink; also, cut flowers in great variety. From Messrs. Hovey & Co., two large flat, one pyramidal, and six hand bouquets. Bouquets and cut flowers from J. Parker, J. Nugent, Wm. Kenrick, Messrs. Winships, E. Winslow, J. L. L. F. Warren, and A. Bowditch.

Award of premiums:—

BOUQUETS.—For the best six hand bouquets, to Hovey & Co., \$2.

For the second best, to A. Bowditch, \$ 1.

For the best pair of mantel bouquets, to Hovey & Co., \$ 2.

For the second best, to J. L. L. F. Warren, \$ 1.

For a large pyramidal bouquet, to Miss Russell, \$ 2.

A gratuity to Miss Russell for a basket of flowers, \$ 1.

FRUITS: From Messrs. Hovey & Co., Muscat Blanc Hatif, Pitmaston White Cluster, and Chasselas de Fontainebleau grapes; also, Lemercier, and Late Duke cherries. From J. F. Allen, Wilmot's Black Hamburg, Victoria Hamburg, Purple Muscat, and Black Hamburg grapes; also, Sweet Montmorency cherries, Noblesse, Grosse Mignonne peaches, and figs. From O. Johnson, Black Hamburg, Zinfindal, White Muscat of Alexandria, White Frontignan grapes; also, White Dutch currants.

From W. Quant, Regne de Nice, Black Frontignan, Purple Muscat, Muscat Muscadine (?), Black Hamburg, extra large berries, Muscat of Alexandria, White Frontignan grapes, very handsome. From John Washburn, Red Astrachan apples, From John Owen, Early Harvest apples. From A. D. Weld, Red and White currants, fine. From A. D. Williams & Son, Red and White currants, fine. From John Hovey, seedling gooseberries. From Mrs. Spalding, figs, extra large.

VEGETABLES: From John Galvin, Newport, R. I., by Eben Wight, Roman Emperor cucumber. From S. H. Hunneman, Roxbury, by J. C. Hunneman, two large winter squashes, of last year's growth, perfectly sound. From A. D. Williams, new potatoes.

HORTICULTURAL MEMORANDA

FOR AUGUST.

FRUIT DEPARTMENT.

Grape Vines in the greenhouse or grapery will now be nearly ripe; some of the earlier kinds quite ripe, such as the White Chasselas, Macready's Early White, &c. Plenty of air should now be given, a little very early in the morning, and the floor should not be damped any longer. If any of the laterals push, they should be cut back again to the first eye. Vines in the cold house will need particular care, as this is the season for mildew: see that the house is closed early in cool windy weather, and do not allow great drafts of air at any time until they begin to color; keep the floor well damped in hot dry weather. Vines in the open air should be now looked after: see that all the laterals are cut off two eyes beyond the fruit, which will prevent the shoots from becoming entangled; lay in the wood carefully for next year's bearing, and head in all that is not wanted for that purpose; this will throw the sap into the grapes, and mature a few leaves, which are better than a mass of young foliage for elaborating the sap.

Strawberry beds may be made this month, after the first good rain, provided the ground has been duly prepared. Let the rows be two feet apart,

and the plants a foot apart in the rows ; alleys may be allowed at any distance, as the cultivator may fancy. Our plan is to set *ten* rows of Hovey's Seedling, leaving an alley four feet, and then *ten* rows of the Boston Pine ; both are equally productive, and one fertilizes the other. Old beds should now be duly weeded, and if the old plants have not been dug in, it should be done without delay. New beds set out last spring should have the runners laid in, or if large fruit is the object, all cut off.

Summer-pruning trees should yet be continued as advised in our last.

Plum, Cherry, Pear, and Apple trees should be budded this month.

Insects : continue to attend to the destruction of these pests of the cultivator.

FLOWER DEPARTMENT.

Camellias should be potted immediately, if not already done ; grafting should also be completed early in the month. Plants wanted for very early flowering should now be taken into the house and placed in a warm situation.

Oxalis Hirta and Bowiei should be potted.

Mignonette should be sown early in the month, and if a succession is wanted, another sowing should be made about the 25th.

Roses should be budded and layered this month.

Chrysanthemums should be layered this month, and if plants have been raised from cuttings, they should now be repotted for the last time, and the tops pinched off. Water occasionally with guano.

Dahlias should all be staked in season, or one severe wind will destroy the expectations of the year. Prune off all superfluous laterals.

Pansies may now be increased by cuttings or layers.

Chinese Primroses raised last month from seed should now be potted off in small pots.

Verbenas for keeping over winter should now be layered into small pots.

Fuchsias should be repotted, if very large specimens are wanted.

Cactuses should be repotted this month.

Euphorbia jacquinesflora should be repotted, and the tops of all the strong shoots pinched off to make them bushy.

Orange and Lemon trees should be budded now.

Victoria, Ten Week, and other stocks should be sown now, if plants are wanted for flowering in the spring.

Pelargoniums will now require attention. If the plants were not headed down last month, they should be done so now, and the cuttings put in as directed last month.

Perennial plants, of many kinds, may be separated and transplanted the last part of the month.

Nemophila insignis, schizanthuses, and other winter flowering annuals should be sown now.

Petunias, of fine kinds, should now be propagated from cuttings or layers for a spring stock.

Tree pæomes should be propagated by grafting.

Greenhouse plants, of all kinds, should be repotted now, and put in order for the winter.

THE MAGAZINE OF HORTICULTURE.

SEPTEMBER, 1847.

ORIGINAL COMMUNICATIONS.

ART. I. *On the Importance of the Cultivation of the Oak and other valuable Timber Trees; with Observations on the Preservation of Ship Timber, and the Process of Decay in Wood.* By A. MITCHELL, M. D., Portland. In a Letter to the HON. H. A. S. DEARBORN. Communicated by Gen. Dearborn.

MY DEAR SIR,—The following article was communicated by me to Gen. Joseph M. Hernandez, of St. Augustine, Fl., and published in the Florida Herald. You will probably recollect that this gentleman has been, for many years, exclusively devoted to the science of Agriculture, and is one of the best systematic planters in that State. An Essay written by him on the Culture of the Tobacco Plant has been considered to be one of the most elaborate articles ever published on that subject.

Reasoning from analogy on the soil and productions of the southern portion of our Union, we may attribute to Florida, as having within its domains as many natural advantages as any of the tropical regions in the cultivation of those plants that are indigenous to those countries, presenting an extensive surface, which as yet remains imperfectly explored—rich in the spontaneous growth of many esculent plants for the support of man, and the growth of domestic animals, and offering a wide field for the cultivation and introduction of many more for exportation and home consumption. Such are the tea-plant, coffee, tobacco, sugar cane, Turkish poppy, olive-tree, cotton, indigo, saffron, grape, fig, &c. As we shall

briefly descant, at present, on the vital importance of a community being well versed in agricultural science, in order to improve with advantage those rich fields which a bounteous Creator has spread out before us, we shall principally advert to the forest-growth of this peninsular portion of our United States, with some original observations on the preservation of ship timber, and the process of decay in these woods.

As our navy may be considered the present and future bulwark of our safety as a commercial nation, it is not thought inappropriate to make a few remarks on those woods which are principally used in the construction of our ships of war and commerce.

The process of decay termed dry rot has been a theme of scientific inquiries for many years among many of our most eminent chemists; and the most elaborate investigations have been made, both at home and abroad, in order to ascertain the chemical effects of air, heat, light, and moisture, on the same, as our oaks and various timbers that have been previously prepared and appropriated to use for ship-building. We do not, at present, have the presumption to offer any preservative means that would counteract the effects of this dreaded enemy to our national purse, but simply to throw out some hints that may, in the future, be useful as a rallying point to others that can claim a precedence over their more humble brothers in the profession of science. The modern use of iron in the construction of marine vessels has been thought, at a subsequent period, would supersede that of wood; we should then have oxides to contend with instead of fungi; but we do not believe the former will ever supersede that of the latter. As the grand engine of navigation is deteriorating every day from the causes of decay, it may be asked, what is the dry rot? and how long has it been known to affect the timbers of vessels, and the cause of this effect? Well, in answer to the former, the dry rot is caused by the spontaneous decomposition of the vegetable albumen which acts as a ferment on the other constituent principles that may be present in the wood, as sugar and starch, which disintegrates the fibres of the wood, and accelerates the growth of mushrooms by the formation of ammoniacal salts. Of these fungi, there are two species,—as the *Xylostroma giganteum*,

which grows in the timber like a thin broad patch of yellow leather, and the *Serpula destruens*, which is not so large, of a reddish color, and white at the edge growing externally. As the cause of this dry rot proceeds from an excess of vegetable albumen in those woods that have been in modern use for ship-building, we may answer the latter question by saying that the primitive oaks of Great Britain, and those of our country, which were used in the early construction of their navies, were not so rich in albuminous matter as the oaks of secondary growths, and those of various locations, are now; therefore the dry rot and fungous growths in such timbers were not known, nor never would have been, had we the timber now of those primitive forests of our country, Europe, and Great Britain. It will appear, by these observations, that we intend to maintain that the cause of dry rot proceeds from the negligence and want of knowledge in the selection of those trees which resist the effects of time and exposure without the process of decay. Such is our position, and, without further comment, we proceed to illustrate many points connected with the subject under consideration, as it is one of the most important to which the attention of a maritime people can be turned.

The oaks of North America, as described by Andrew Michaux, consist of twenty-nine species and varieties, most of which are useful in ship-building; the one considered the most useful, and stands at the head of the list, is the live oak, *Quercus virens*. It is a perennial tree, of slow growth, like the rest of its congeners, and is common to Florida, where the most extensive forests of this tree are seen. It is generally found growing from latitude 37° to Florida, "and westward to the mouth of the Sabine River," but never more than 15 or 20 miles from the sea. This valuable tree can be said to contain less of the causes of decomposition, as albumen, sugar, and starch, than any of the species hitherto described; therefore, it is the most durable, and less liable to decay; and, with all this natural immunity against spontaneous decomposition, we should not overlook the locality of its growth, age, and season of cutting for ship-timber. This is a necessary precaution, which is applicable to the whole tribe of oaks that are used in the mechanics. The best localities for the

selection of durable timber from those trees, are elevated regions, high table lands, and an open country, where they are not overshadowed by other growths. They should stand where there is ample room for their branches, with a free access of air, heat, and light on all sides, as often seen on the boundary of some plantation, or as ornaments which veneer the mansion of the planter, or such like places. The woody fibres of such trees are more dense; they contain more carbon or astringent qualities, with less vegetable albumen: whereas, to the contrary of this, should such timber be cut in low wet grounds, ravines and shady places where they grow compact, it would be liable to decay from the causes mentioned, as there would be an excess of those constituent principles, and a softer structure that would hasten the decay, and cause the dry rot, so deleterious to our navies. The age of the oaks is next to be considered. They generally attain their maximum height and full development at the age of fifty or sixty years, and, after that period, they progress but slowly, until they arrive at a very advanced age, as two or three hundred years or more. Those of the live oak that can be best recommended for durable timber, are such as have arrived to the period of a hundred years or more, if the constitutions of the trees are sound, and no visible decay is present. The gigantic growth of this tree at the age last mentioned far surpasses any of its species. The measurement of one of its limbs by myself in a horizontal line exceeded sixty-five feet, while the diameter at the junction exceeded the size of the bodies of many red and black oak species of a full size, or secondary growths that have survived seventy winters. We repeat that the maturity of the species of oaks must be considered before used or appropriated for ship-building; for it is at this period the strength and durability of the wood are fully developed, and the longitudinal fibres tough and resisting. As the albuminous matter of which we have spoken is a nitrogenized compound, it is of a putrescible nature, and therefore forms food for insects, which penetrate the wood in various directions, admitting air and water to the interior of the timber. It is evident that this chemical action, or fermentative process, must be greatly favored by external causes, or the location in which the wood is placed. The close ap-

position and dense mass of timbers that are seen in the hull of a battle-ship of the line on the stocks is considered as favorable to this action, although there are no doubts but what the germs of the disease are lurking in the timbers previous to their use, occasioned by the want of care and suitable selection of appropriate trees, and preservation of the timber after cutting. The local sites of navy yards, where there must be a proper depth of water, unavoidably place the timber in a topographical situation that is unfavorable to the preservation of the wood, as heat and moisture accelerate the chemical action, and promote the fungous growths, whose nutrition depends on the chemical changes heretofore mentioned.

Could we always find a suitable hydrographical station for a navy yard, where, combined with its facilities, there was a dryness and purity of atmosphere, many of the causes that decompose the materials for ship-building would be prevented; but, as such localities cannot always be found in the surveys for such stations, we must patiently submit to the injurious effects of heat and damp atmosphere, however well guarded the ships may be in their sheltered positions by ventilation and suitable protection; although it is of the highest importance that the geographical situations of such places should be well understood and taken into consideration, as rivers, marshes, bogs, mean standard of the thermometer, barometer, and hygrometer, and mean quantity of rain.

The proper season for cutting such timber will next be considered. The months of July and August, when the trees are in foliage, and the juices circulating freely, is decidedly the best period for cutting; as then the greater portion of the albumen is contained in the cambium or descending sap, while most of the nitrogen is set free by exhalation, and is principally combined with the fluids that circulate exteriorly. The trees, after they are fallen, should be immediately rough hewn, and deprived of their sap-wood and bark, placing the timber in the most favorable situation for seasoning and desiccation by elevating it from the earth. The ordinary process of seasoning wood consists in merely exposing it to a current of air. It would be a desirable thing if we could find a location where

a dry air could be naturally maintained throughout the year ; but this desideratum could not be easily obtained. The time necessary to season the oaks differs according to the density of the structure, (and various dimensions of those woods that are exposed for desiccation ;) a plank probably would not require twelve months, while a piece of larger dimensions could not be thoroughly seasoned in six or seven years ; and, if placed in a humid situation, would not season at all, and the result would be a decomposition from the formation of ammoniacal salts and mushroom growths.

To benefit property, and perpetuate the materials for ship-building, and increase our navies, we propose that the legislatures of our States appropriate means for the cultivation of those oaks that are indigenous to their regions. In order to ensure success in such an undertaking, a tract of land should be set apart of some thousand acres in a favorable location for their growth. The soil for this purpose should not be too rich nor stimulating : the trees can be propagated from the acorn, or transplanted from their native forests. If the latter plan is adopted, the trees selected for this purpose should be from four to five years of age, of a healthy appearance, and perfect symmetry. We recommend their being taken up in the latter part of October or the month of November, with a careful preservation of their roots, and immediately transferred to the soil that is allotted for their permanent abode. This period for transplanting those trees is decidedly the best, as then the descension of the sap is completed, and the action of the leaves quiescent, while that of the absorbing rootlets ceases also, because the nutrition which is taken in by them is not convertible into woody substance without the coöperation of the leaves. They should be set apart, at proper distances, in such a manner as to have ample room for growth, and the free action of heat and light on all sides. Such parks or nurseries in our States would be more commemorative of the genius of a nation than all the marble monuments and towering edifices that can be erected. This scheme is not only thought worthy of a government's consideration, but is applicable to every individual farmer and landed proprietor in this country. They should be transplanted on the outskirts of every farm or plantation ; marking the boundary of

their different possessions, by the growth of those sylvan giants that have been the pride of nations for centuries.

AUGUSTUS MITCHELL, M. D.

Portland, June 24, 1847.

HON. H. A. S. DEARBORN.

No subject is of more importance, in a national point of view, than the preservation of our Forests, and the formation of new plantations for the supply of timber for maritime purposes. The subject has been, from time to time, agitated, and Congress has been memorialized in reference to it, (Doc. 241, 25th Congress.) But amid the party strife which at that time occupied public attention, the matter ended with a reference to the Committee on Naval Affairs.

We hope, now, that the efforts of Dr. Mitchell may be instrumental in again drawing attention to this important question, and should the establishment of an Experimental Garden in Florida for the cultivation and acclimation of tropical plants be successful, that not only will the attempt be made to acclimate the useful trees of other climes, but that the whole subject of Arboriculture will be its leading feature,—that a series of experiments may be carried out to ascertain the best period of felling trees, and the best plan of seasoning timber,—the prevention of dry rot,—and all other questions pertaining to the preparation of timber for naval purposes.

Should Congress not move in the matter, we trust the interests of each and every State may be appealed to in the way Dr. Mitchell proposes; our own State has just concluded her Report upon the trees indigenous to her soil, and we doubt not that the interests of the Commonwealth will induce her to take some steps to accomplish this. Mr. Emerson has set forth, in just terms, the importance of the preservation of our forests, and urged the formation of new plantations of trees on the thousands of acres which now lay waste and barren. A tract of land set apart for the growth of our native trees, as well as all those of other parts of the country, and of foreign growth, which will flourish in this latitude, and entrusted to the care of some competent individual, would be an object, as Dr. Mitchell remarks, “more commemorative of the genius of a nation, than all the marble monuments and

towering edifices that can be erected." Such a garden would form a school for the study of the noble trees which enrich our forests, and make them as familiar as the commonest plants of our gardens, and furnish a fund of practical information in regard to their growth, habits, usefulness in the arts, and adaptation to the purposes of ornamental landscape.

But we have not room to follow the train of ideas which Dr. Mitchell's article calls up: of the importance of the subject, all will agree, and we hope that something may soon be done, especially in our own State, to induce our land-owners to preserve what remains of our primitive forests, and to commence, at least in a limited way, the plantation of new ones on what are now considered unimproveable lands.—*Ed.*

ART. II. *May's Victoria Currant, with an Engraving of the Fruit.* By the EDITOR.

IN our article upon the cultivation of the currant, in a previous volume, (VIII. p. 325,) we offered some remarks upon the importance of raising currants from seed with a view to the production of new and improved varieties. Among the smaller fruits, none possess a greater value than the currant, and yet none have received less attention at the hands of cultivators. Mr. Knight, impressed with the idea that very superior kinds would be the result of proper attention to the growth of seedlings, wrote an article upon the subject which was published in the *Transactions* of the Society. He also raised a great number of seedlings, and three of them were thought to possess such merits as to be deserving of names. The gooseberry has been improved from a small and austere berry to a very large and delicious fruit: the strawberry has also been produced of such size and flavor as to be scarcely recognized as the offspring of the wild berry of the woods and pastures. And why may not the same success attend experiments to improve the currant? There is no reason to doubt they will, and we may yet hope to see currants nearly as

large as cherries, and possessing a flavor much sweeter and richer than any we now possess.



Fig. 32. Victoria Currant.

The White and Red Dutch currants have been cultivated for a great length of time, and have not, until now, been displaced by any new varieties. Mr. Knight's seedlings, though good, did not supersede these old sorts. We have, however, in the variety under notice, one which bids fair to take a place at the head of all. This is *May's Victoria*. Though recently raised from seed, and as yet confined to a limited number of collections, its merits are so great that it will soon find its way into every garden. The berries are of very large size, of a rich deep color, often measuring five eighths of an inch in diameter, and the bunches are from five to six inches long. The flavor is also excellent, and,—what is of great importance,—the fruit will hang in perfection for a much longer time than the White or Red Dutch.

This variety was raised by Mr. Wm. May, nurseryman, of Yorkshire, Eng., and the fruit was exhibited at one of the shows of the London Horticultural Society, and was awarded the prize both for its size and excellence.

It has been but little disseminated, owing to the high price of the plants; but, as they are easily multiplied, we may soon hope to see it introduced into every garden where the production of fine fruit is an object.

Our plants produced a few specimens last year, and, from the ordinary size of the clusters and berries, we thought it had been overrated; but, the present season, when the bushes had acquired sufficient strength to bear a crop, we were happily disappointed in finding the fruit and bunches of such large size and beautiful appearance; and our drawing (*fig. 32*) is an accurate representation, by measurement, of the size of both berry and bunch.

The plants are of exceedingly vigorous habit, with foliage differing from the White and Red Dutch in being thicker, deeper green, and not so finely cut at the edges: in good rich soil, the annual shoots are very stout and strong.

The currant, as we have stated in the article before alluded to, requires to be severely pruned when the object is large and handsome bunches and berries. It would be useless to expect fine fruit unless this is attended to. At the spring pruning, every new shoot should be headed back to four or five eyes, and the old wood wholly cut out, or as much of it as possible, as it is only on the young and vigorous wood that the best fruit is produced. By attending to these suggestions, the cultivator may have the very finest fruit.

We may therefore highly recommend the Victoria currant; and, as its production is one step towards a superior fruit, we hope our amateur cultivators may be induced to follow up the experiment until something still better shall be the result.

ART. III. *Descriptions and Engravings of select varieties of Cherries.* By the EDITOR.

HAVING, in our several volumes, described and figured upwards of EIGHTY varieties of pears, embracing all the choicest which have yet been proved, and having also commenced another series of articles in which we intend to describe and figure all the fine sorts of apples in the same manner, we now intend to devote the same attention to the cherry, and describe and figure all the fine ones which are worthy of cultivation. We have been gathering the materials for some time, and

should have commenced our article sooner; but, as our object is to enumerate them only so far as we can do so with perfect accuracy, we have deferred it until our own trees have come into bearing. We have now nearly one hundred specimen trees, of about as many sorts, which we have received from all the best sources, both at home and abroad, and as they have commenced fruiting this year, we are enabled to give an account of them with the specimens before us.

The late Mr. Manning, in an excellent paper in a previous volume, (VIII. p. 281,) and one of the last which he ever wrote, has given a brief synopsis of forty-four kinds, including several seedlings, which he had fruited in his collection. Our object will be to give the descriptions in detail, with the habits and general character of the trees, together with outline engravings of the varieties enumerated, and we hope they may be the means of aiding the amateur in clearing up the confusion in the nomenclature of this fine fruit.

Nothing, it seems to us, could more impress an individual with the importance of a careful selection of the best kinds of fruit when planting a garden, or an orchard, than an inspection of our market during the cherry season. First, let him look at any of our pomological works, and then at the catalogues of our most extensive nurseries, and he will find there enumerated some sixty or eighty sorts all characterized from "fair to prime;" then let him, and, if he pleases, with catalogue in hand, walk through our market and examine the fruit. What does he find? Why, with three or four exceptions, if, from the limited quantity, they can so be called, he does not meet with one of the varieties. The May Duke, Sparhawk's Honey, Downer's Late Red, a few Tartarians, and a few Bigarreaus, to the amount of some bushels, may be seen; but the named sorts do not amount to *one tenth* of the supply. The Downton, the Elton, the Black Eagle, the Waterloo, the Florence, and other equally delicious sorts, introduced twenty-five years ago, are not seen, and indeed scarcely known. The whole stock is mazzards, and even poor at that, for we have seen very fine mazzards better worthy of a name than some which have received a high-sounding title.

And why all this neglect? Are not the fine sorts to be obtained? Or, are seedlings good enough. Undoubtedly, until

within a few years, the former were not to be had in any quantity, and the trees of only moderate size. This, coupled with the prevailing *mania* for large trees, has induced many to purchase seedlings; but another great cause has been, that few of the many who plant have any knowledge of the superiority of the choice sorts over the wildings, and are contented to know that they have a cherry; and this idea is, unfortunately, too prevalent: for we are assured by nurserymen, that the call for *large* mazzard trees is still very great. For ourselves, we should as soon think of planting seedling pear trees as seedling cherry trees, for there is almost as much difference between an Elton cherry and a mazzard, as between a Seckel and a wild pear.

The cherry has received too little of the attention of amateur cultivators. From the period of the introduction of the Black Tartarian into England, as early as 1794, very little improvement was made until 1814 or 1815, when Mr. Knight, with that application of science to the art of gardening for which he was so eminent, produced several new kinds, remarkable for their beauty and excellence; but, from that period till within a few years, there seems to have been as little done as previous to Mr. Knight's efforts. We have some accidental seedlings of native growth which possess superior qualities, but few attempts have been made to produce new varieties by cross fertilization. The plum, during this period, has been nearly doubled in size, and greatly improved in quality; but there is scarcely a cherry which excels in size, and but few which equal in flavor, the Black Tartarian, the oldest variety we possess. Cultivators have turned their attention to the growth of seedling pears, and we hope that the cherry may also be made the subject of experiment for the production of larger and better varieties.

Notwithstanding the apparent efforts of pomological writers to clear up the doubts in regard to the distinct character of many sorts of cherries, great confusion still exists; and it will be difficult to arrive at certain conclusions only through a careful examination of the trees, foliage, and fruit, of each. Though a work of no little labor, we hope to do our part towards accomplishing it; and our series of articles is commenced with that end in view. Another year, when our

trees will be more fully in fruit, we shall be enabled to identify many sorts; for the present, we annex the descriptions and engravings of three late varieties, each of which are but very little known to cultivators.

1. LATE DUKE. *Pomological Magazine*, pl. 45.

Anglaise Tardive, Hort. Soc. *Catalogue*, 1842.

The origin of this fine cherry is unknown; it was first received from M. Vilmorin, of Paris, by the London Horticultural Society, and though, from one of its names, Anglaise Tardive, it would seem to be of English origin, no trace of it has been discovered in English collections. The *Pom. Mag.* states that Switzer and Hill, old writers, mention a late May Duke, but it is doubtful whether it could be referred to this variety.

Lindley, in his description of the Late Duke, observes that it has great affinity to the Arch Duke, and Thompson, in his Synopsis in the *Transactions* of the London Hort. Soc., (vol. vii. p. 276,) says that the "Arch Duke may not be found to be different when obtained correct, but that hitherto the May Duke has been received for it." There is no doubt, however, that the Arch Duke is a different fruit, as we shall soon show, and that the true variety had not come under Mr. Thompson's observation at that time.

The Late Duke (*fig. 33,*) is a valuable cherry, ripening very late, of large size, an abundant bearer, and resembling the May Duke in quality, though rather more acid; our tree, though small, was covered with fruit, and, but for the birds, we should have gathered a fine crop; by netting over some of the branches, we succeeded in obtaining some fine specimens, from which our drawing is made.

Fruit, large, one and an eighth of an inch in diameter, roundish heart shape, with a slight suture on one side: *Skin*, rich deep

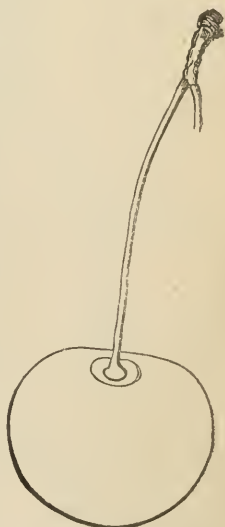


Fig. 33. Late Duke Cherry.

shining red when mature : *Stem*, long, about one and a half inches, slender, and rather deeply inserted in a shallow cavity : *Flesh*, pale amber color, tender, and slightly adhering to the stone : *Juice*, abundant and rich, subacid, similar to the May Duke : *Stone*, medium size, roundish. Ripe the last of July and beginning of August.

The fruit is borne in pairs, or threes, on a short peduncle, about a quarter of an inch in length. The tree is of vigorous, upright, and rather compact growth, little more spreading than the May Duke, and with rather larger leaves. It will prove a very valuable cherry.

2. ARCH DUKE. *Guide to the Orchard.*

Griotte de Portugal, *Duhamel*.

Portugal Duke, of some collections.

Late Arch Duke, } Hort. Soc. *Cat.*, 3d Ed. 1842.

Late Duke,



Fig. 34. Arch Duke Cherry.

There has been a variety of opinions among pomological writers in regard to this cherry, (*fig. 34*.) some asserting that it is synonymous with the Late Duke. Lindley is the only English author who seems to have been acquainted with it. Mr. Thompson, at the time he wrote the excellent paper in the *Transactions* of the Hort. Society, above alluded to, had not proved it, and, as late as 1842, it had not been identified in the garden of the Society. The May Duke has generally been sold for this variety ; our tree was received from Mr. Rivers, and is quite unlike either the May Duke or Late Duke, though the habit of the tree is similar ; the fruit ripens intermediate between the two, and is more heart-shaped, of larger size, rather darker color, and fully equal to either of them in quality.

Fruit, large, one and an eighth of an inch in diameter, obtusely heart-shaped, slightly compressed, with a distinct

suture on one side, and indented at the apex: *Skin*, dark shining red, when fully mature mottled with a deeper shade: *Stem*, long, about one and a half inches, slender, and deeply sunk in a roundish cavity: *Flesh*, light red, tender, and slightly adhering to the stone: *Juice*, abundant, subacid, rich and high flavored: *Stone*, medium size, oval, compressed. Ripe from the middle to the end of July, about a fortnight before the Late Duke.

The fruit is borne, like the Late Duke, in pairs and threes, on a common peduncle, which is about a quarter of an inch to the fork and rather slender. Tree, vigorous, rather more spreading than the May Duke, and with thicker and larger foliage.

3. LEMERCIER. *Magazine of Horticulture*, Vol. XII.

The Lemerrier (*fig. 35*,) is a new French variety of very recent introduction; and a brief account of which will be found in our last volume, (p. 343.) It nearly resembles the Late Duke, ripening about the same time, and of about the same quality. The original tree is said to have been found in Brabant, by M Lemerrier, after whom it was named, and was introduced to Paris by M. Noisette, in 1835. Our tree was received from France in 1842, and bore, for the first time, last season; the present year, the trees were quite full of fruit, although only four years old, and standing in the nursery row. The fruit was ripe the latest of any cherry, and, but for the high wind and rain of the fifth of August, would have remained in perfection till the present time.

Fruit, large, one inch in diameter, roundish, and rather obtuse, with a shallow suture on one side, ending in a distinct prominent point: *Skin*, light shining red, of a somewhat transparent appearance, and marbled with a deeper shade: *Stem*, rather long, about one and a half inches, moderately slender, and deeply inserted in a large, broad, deep hollow: *Flesh*,

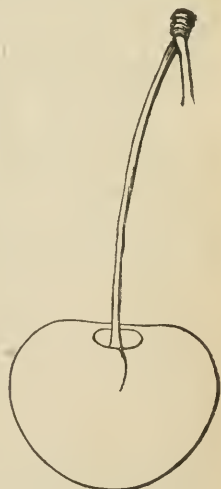


Fig. 35. Lemerrier Cherry.

pale amber, tender, and partially adhering to the stone: *Juice*, very abundant, subacid, rich and good: *Stone*, rather small, roundish. Ripe the beginning of August.

The tree is of vigorous growth, with the foliage of the Duke cherries, but with branches of a very spreading habit. The fruit is also generally borne in pairs, and not on forked stems, which will at once distinguish it from the Late Duke.

ART. IV. *On the Propagation of Stove and Greenhouse Exotics: in a Series of Letters.* By JAMES KENNEDY, Gardener to S. T. JONES, Staten Island, New York.

LETTER VI. *Propagation by Root Divisions.*

THIS is a mode often resorted to in increasing those kinds of exotics that will not produce seed, or propagate readily by any other means. But it could not be carried out extensively, unless the propagator possesses the acquisition of a conservatory to supply his wants. And even then, the greatest care should be taken, not to approach too near, or to injure the parent plants. However, let as large pieces as possible be procured, and potted off separately, using that compost in which the parent plant is found to flourish best. It is useless to remark that the pots ought to be proportioned to the size of the roots. In potting, let their points be a little above the surface, (say an inch); after potting, let them have a sprinkling of water to settle the soil round them, when they must be plunged up to the rims in a previously prepared hot-bed; but not too hot, nor containing much rank steam. A little air should be given in the middle of the day, and regularly shaded by means of mats when the sun is powerful. As soon as they have taken fresh root, and the tops begin to produce leaves, let them be removed, and hardened off gradually to their respective departments.

There are many species of that most interesting and ornamental genus *Acacia*, which can only be increased by this means, as *Acacia decipiens*, *Sophora falcata*, &c. &c.

LETTER VII. *Propagation by Leaves.*

This is a mode of propagation which has become quite as common, and fully as successful, as propagation by cuttings; and, indeed, I consider it the easiest and most successful mode of increasing such exotics as gesneras, gloxinias, *Hoya carnosa*, &c. &c.

The state most favorable for rooting leaves, is when they have completed about three parts of their growth. Let the leaves of the desired kinds be taken off close to the stem, and inserted into pots, such as were recommended for cuttings, prepared in the same manner. The whole of the leaf-stalk and about half an inch of the leaf should be covered, and laid in a slanting direction, when they should have a sprinkling of water, the bell-glasses put on, and removed to the propagating-house, or a previously prepared hot-bed, where, if kept uniformly moist, warm, and the bell-glasses regularly wiped inside every morning, they will soon strike root; but care must be taken to shade them in bright sun-shine, in order to prevent excessive perspiration until they emit roots; after which they may be fully exposed to the light. Should any happen to damp off, let them be immediately removed, otherwise, they might endanger the whole. As soon as the leaves begin to push young shoots, the glasses may be taken off and the pots removed to a dry shed, there to remain for a few days previous to their being potted off.

Staten Island, N. Y., August, 1847.

ART. V. *Floricultural and Botanical Notices of New and Beautiful Plants figured in Foreign Periodicals; with Descriptions of those recently introduced to, or originated in, American Gardens.*

Schubertia graveolens.—This new and handsome climber, already noticed, (Vol. XII. p. 480,) with flowers greatly resembling the beautiful *Stephanôtus*, is now coming into bloom in our collection. The flowers appear in clusters, are pure

white, and very fragrant. It is a most desirable greenhouse climber.

New Phloxes.—Some fine additions to this elegant family of hardy garden perennials have been recently introduced, principally from the Belgian and French collections. A few years ago none but self-colored sorts were to be seen, but now we have them edged, pencilled, striped, marbled and shaded, of almost every tint and hue. Some of the new ones are remarkably beautiful and distinct, and among them may be named the following:—*Standard of Perfection*, with two colored flowers, each petal half white and half pale blue, of fine form, and disposed in magnificent pyramids: *Goethe*, white, flamed with pale lilac, beautiful: *Eclipse*, blush, shaded at the edges of the petals with deep purplish rose, flower large and handsome: *Fleur de Marie*, white, with distinct violet eye: *Annais Chauviere*, white, with a distinct purple eye: *Speculum*, white, slightly mottled with pink, the flowers disposed in spikes.

Many others have been introduced and will yet flower, but owing to the weakness of imported plants, not so strong as another year. Charles, Blanc de Neuilly, Nymphæa alba, Kermesina, Œil de Lynx, Princess Marianne, and some others, have flowered superbly this year; and are all fine additions to this most brilliant of our autumnal flowers.

23. IMPATIENS PLALYPE'TALA *Lindl.* Flat-petaled Balsamine. (Balsaminææ.)

A greenhouse plant; growing two feet high; with violet-colored flowers; appearing in winter; a native of Java; increased by cuttings and seeds; cultivated in rich soil. *Flore des Serres*, pl. 215. 1847.

A new and charming species of the Balsam, which, in our climate, will probably succeed as an annual, and become a great ornament to our gardens. Unlike the other species, the petals are quite flat, and the flowers appear in clusters at the axils of the leaves. It is of the easiest cultivation in any good rich soil. (*Flore des Serres*, April.)

24. LESCHENA'ULTIA ARCU'ATA *De Vriese.* Drooping Leschenaultia, (Goodeniææ.)

A greenhouse plant; growing one foot high; with yellow and crimson flowers; appearing in spring; a native of Swan River; increased by cuttings; cultivated in peat, leaf mould, and sand. *Flore des Serres*, pl. 219. 1847.

Another most brilliant species of this fine tribe, with large

yellow flowers, with the centre petals tipped with deep crimson, and very showy from the contrast of colors. The habit is more robust than the *L. formosa*, and the flowers are produced in the same profusion as in that species. It is a native of Swan River, and requires the same treatment as *formosa*. (*Flore des Serres*, &c., April.)

25. *IXORA SALICIFOLIA* *De Cand.* Willow-leaved Ixora.
(*Cinchonaceæ*.)

A stove plant ; growing two feet high ; with bright rose-colored flowers ; appearing in spring ; a native of Java ; increased by cuttings ; cultivated in peat, loam, and sand. *Flore des Serres*, pl. 217. 1847.

This is one of the prettiest of this family, which, we regret to say, is very little known in our collections, though the old *I. coccinea* has been introduced many years. *I. salicifolia* has very long and narrow leaves, and the flowers, which at first are of a bright nankeen, change, as they open, to a rose vermilion. The corymbs are ample, and, by the variety of tints, form a showy object. Introduced into the collection of Van Houtte from Java, where it first flowered in March last. It requires the same treatment as the *I. coccinea*. (*Flore des Serres*, April.)

26. *GLOXINIA TEUCHLERI* (hybrid) *Hort.* Teuchler's Gloxinia.
(*Gesneraceæ*.)

A greenhouse plant ; growing a foot high ; with blue and scarlet flowers ; appearing all summer ; a hybrid ; increased by cuttings ; cultivated in peat, leaf mould, and loam. *Flore des Serres*, pl. 230. 1847.

This is one of the most magnificent hybrids which has been produced, having the ground color of the old *G. rubra*, and distinctly marked with large bands or stripes of deep blue, of the color of *G. caulescens*. It is said to have been obtained from seed by M. Teuchler, of Bohemia, between the *G. caulescens* and *rubra*, the flowers being the size of the former. Recently, many amateurs have visited the garden of Van Houtte to see it in flower, doubting the remarkable coloring which has been given in the plate. We hope soon to see it in our collections. (*Flore des Serres*, April.)

27. *LILIUM CALLOSUM* *Zucc.* Hard-bracted Lily. (*Liliaceæ*.)

A greenhouse bulb ; growing two feet high ; with scarlet flowers : appearing in summer ; a native of Japan ; increased by offsets ; cultivated in peat, leaf mould, and loam. *Flore des Serres*, pl. 230. 1847.

A very delicate species of lily, with linear, grass-like leaves,

and small scarlet flowers, having two bracts, terminated in a small roundish hardened point. It is a native of Japan, and was found by Siebold at an elevation of one or two thousand feet above the sea, where it grew in abundance in a volcanic soil. It is a very pretty addition to the lily tribe, flowering as it does at the same time of the larger Japan kinds. It is cultivated in the same manner. (*Flore des Serres*, May.)

28. HE'NFREYA SCA'NDENS *Lindl.* Climbing Henfrefya. (*Acanthaceæ*.)

A greenhouse plant ; growing three or four feet high ; with white and rose-colored flowers ; appearing in spring ; increased by cuttings ; cultivated in peat, loam, and sand. *Flore des Serres*, pl. 231. 1847.

A beautiful species of a new genus, remarkable for its climbing habit,—unusual in this family,—its beautiful foliage, and terminal clusters of large white flowers, tinted with rose. Its native country is not given ; but it flowered in England last spring in the collection of Mr. Knight, and a medal was awarded by the London Horticultural Society for a fine specimen. It is increased by cuttings, and grown in a rich light soil. (*Flore des Serres*, May.)

29. CE'REUS GRANDIFLO'RO-SPECIOSÍSSIMUS MAYNARDII *Nob.* Maynard's Cereus. (*Cactaceæ*).

A greenhouse plant ; growing four feet high ; with orange scarlet flowers ; appearing in spring ; an English hybrid ; increased by cuttings ; grown in rich soil. *Flore des Serres*, pl. 233. 1847.

Many attempts have been made to produce new varieties of the cereus, between grandiflorus and speciosissimus ; but we are not aware of any successful accomplishment of the object, except the plant now under notice. It has been thought that some singularly fine kinds might be the result of the union of these two. The specimen before us is certainly very showy ; having a stem similar to the grandiflorus, and flowers somewhat like it in form, but of a deep orange scarlet shade : the pale tint of the former having neutralized the rich violet hue of the speciosissimus. The flower has two rows of numerous petals, the outer ones standing erect, and the inner ones with the ends curved inward. Their diameter is 9 to 10 inches.

This variety was produced from the seed of speciosissimus, impregnated with grandiflorus, by Mr. Keynes, gardener to Viscount Maynard. It is of vigorous habit, flowers freely

and abundantly, and the flowers remain in beauty two or three days. It is a fine addition to this showy and brilliant family. (*Flore des Serres*, June.)

30. AZA`LEA INDICA EXQUIS`TA *Hort.* Charming Azalea. (*Eri-cæceæ.*)

A greenhouse plant; growing three feet high; with variegated flowers; appearing in spring; a garden hybrid. *Flore des Serres*, pl. 239. 1847.

The production of seedling azaleas has greatly increased during the last few years, and the English, French, and Belgians, have raised many superior varieties; our own amateurs have also given this fine tribe much attention, and some of their seedlings are among the best in our collections. The variety now under notice is one which well represents its name, being exquisitely beautiful: the flowers are of a delicate rose, mottled with a deeper shade, striped with crimson, and edged with white. It is of a robust habit, and an abundant bloomer, and must rank among the very choicest which have yet been produced. It was raised by Mr. Smith, of Norbiton, near London, who has been one of the most successful cultivators of seedling azaleas and rhododendrons. (*Flore des Serres*, June.)

31. AZA`LEA INDICA STRIA`TA FORMOSI`SSIMA *Hort.* Beautiful striped Azalea. (*Eri-cæceæ.*)

A peculiarly delicate and unique variety, raised by Mr. Van Geersdale, of Ghent. The flowers are white, elegantly and irregularly striped with pale rosy violet; they are large and of handsome form, and abundantly produced. It is a fine companion to the exquisita, *Gledstanèsi*, and others of the same style of flowers, being distinct from either. The plant is of good habit. (*Flore des Serres*, June.)

32. CALCEOLARIAS. Van Houtte's Seedlings.

Amateurs, who have seen the ordinary seedlings which have been shown at our exhibitions, can form no conception of the beauty of the new ones, raised by M. Van Houtte, of Ghent. About twelve varieties are figured in the *Flore des Serres*, for June, and they are of the most remarkable character, both for the variety of their spots, blotches, bands, and pencillings, as well as for their brilliant colors.

REVIEWS.

ART. I. *The Culture of the Grape.* By J. FISK ALLEN. Embracing Directions for the Treatment of the Vine in the Northern States of America, in the Open Air, and under Glass Structures, with or without artificial heat. Pamphlet, 8vo. 56 pages. Boston, 1847.

THE culture of the grape, under glass, is rapidly extending every year. In our northern climate, where, except in cities, this delicious fruit cannot be produced in the open air, in any perfection, a grape-house, either with or without heat, will soon be a necessary appendage to every garden of any extent. A few years since, a bunch of handsome grapes, even as early as September, was quite a rare production, and commanded a very liberal price. Now our market is supplied with them from April to December, and at such reasonable rates, as to greatly increase the consumption of such a healthy fruit.

The increased attention which has been given to its cultivation, has demanded more information in regard to the treatment and management of the vines. With the exception of Prince's *Treatise*, there has been no elementary work, adapted to our climate, to which amateurs could refer, and the principal information has been given through the pages of our Magazine. A book, of the character of that before us, has been wanted, and Mr. Allen, whose experience as an extensive cultivator for the supply of large quantities of fruit, has been extensive, and his practice successful, has been so often applied to for information in regard to this subject, that he has been induced to give the results of his experience in the pamphlet now under notice.

The cultivation of the grape in England has been extensively pursued, and many treatises have been written upon the subject: one of the best of these is that of Speechly, who has been considered the best cultivator. But neither his, nor other treatises of foreign writers, are wholly adapted to our climate, and the young tyro who follows them, is often sadly disappointed in his crop. The difference of climate requires different modes of management, and although valuable hints and

suggestions may be learned from Speechly, and other writers, yet there will be much judgment to be exercised in applying their practice to our own.

Mr. Allen has thus alluded to this :—

“ There are several works published in England, written by practical men, giving ample directions for the cultivation of the grape in that country ; but the climate of the Northern States of America is so different from that of England, that, however well calculated these directions may be for the latter, they can hardly be expected to suit the former. The temperature of England is milder, and is not subject to the great extremes of heat and cold which we experience. The searching northwesterly winds, which prevail with us in New England in the winter and early spring months, with the mercury often at zero, and even below that point, and the sudden changes we are liable to, in this season of the year, often equal to forty degrees in a few hours, render the care requisite, for the successful forced culture of fruit, very great, and the process a more difficult one, *in this country*, than in England.”—p. 2.

In regard to the “more difficult” process of producing the grape, *in this country*, the author undoubtedly alludes to early forcing ; for we apprehend that in cold houses the process requires as little care, if not much less, than in England.

The directions, Mr. Allen remarks, “are intended for those who may desire to cultivate this fruit, for their own pleasure or convenience, and do not wish to incur the expense of a regularly educated gardener, and who have felt the want of a concise and simple explanation of the process, and the rules by which the operations of forcing and of growing grapes, under glass structures, can be carried out.”

Mr. Allen thus alludes to some of the advantages of our climate over that of England :—

“ The disadvantages we labor under, in this country, in forcing fruit, from the extreme coldness of the weather in winter, are counterbalanced, in some degree, by the superior brilliancy of the sun, and consequent dryness of the atmosphere, at the time of ripening, which gives a flavor to the fruit, such as it can rarely be made to attain, in the moist, dull, and cloudy weather of England. The variations of the temperature are always indicated by a Fahrenheit thermometer.”—p. 4.

Having just written our article upon the treatment of the grape in the greenhouse, (p. 293,) and having given our

views in relation to the formation of the border and general management of the vine, we shall briefly notice some of the directions of Mr. Allen, which differ from our own; particularly his views in relation to the preparation of grape borders.

The work commences with the grapery,—its location,—the formation of the border,—planting the vines,—and their treatment for five years successively. The forcing of the grape,—the retarding-house,—list of varieties,—and, in conclusion, the pruning and training of out-door grapes.

“First in order,” the author remarks, “and of the utmost importance, is the situation of the house. It must be so located that stagnant water will not remain on the border, or within reach of the roots of the vine.” These directions are all-important, and cannot be deviated from in the successful management of the grape. Not so, however, the direction, that “the house should front the south,” or “a slight variation, provided it is to the east.” If forcing was only to be the object, this would hold true; but, for the ordinary culture of the grape, either with or without heat, it is, by no means, necessary. In our bright climate, any position but a northern one, will enable the cultivator to produce the most delicious grapes. We wish this to be understood, because there are many small gardens where it would be desirable to have a grape-house; but where the location of the dwelling, or the form of the garden, would not allow of its being so placed, without setting at nought all appearance of harmony and good arrangement. It may be set down as a rule, that a grape-house may be so situated as to face any point from East to West, and without the least injury to the crop of fruit.

The preparation of the border is next in importance. Mr. Allen’s plan is as follows:—

“If the soil is a good loam, begin at one end and trench it; mark off ten feet the entire width; throw out the soil two feet deep; if bones, or the carcasses of animals can be had, cover the bottom well with them; if these are not readily procured, slaughter-house manure may be substituted; mark off ten feet more of the border, and cover this manure with part of the soil from it; upon this, put an inch or two of oyster shells, or old lime rubbish, mixed with broken bricks; over this, put some soil from the border; then a good covering of cow manure; upon this, a slight covering of loam again, followed with a good portion of oyster shells, or the substitute; and over this, a thick covering of stable manure, well rotted; finish with a covering

of the loam. The whole length is to be made in this manner, in alternate spaces of ten feet each trenching. After it is finished, the border should be three feet six inches deep; it will settle to less than three feet in a few months; any soil left, after it is finished, can be carried off.

The proportions recommended for this border, are one half loam, one fourth bones, or other strong manure, one eighth oyster shells, or lime and brick rubbish, and one eighth rotten stable manure.”—p. 7.

It will be noticed that Mr. Allen recommends the plan of many English cultivators, viz: the employment of the carcasses of animals, if they can be had, in the making of the border. They may undoubtedly be used; but, as we have remarked in the article alluded to, we believe they are, by no means, important, and, indeed, rather to be objected to, especially in retentive soils; and we are sure such borders never give better crops, or more delicious fruit than those which are made without them. We advised a thorough trenching of the border, but Mr. Allen directs that, although made up in layers, yet that the surface should only be spaded over before planting. Trenching could not of course be done where there were dead carcasses; but yet the compost above these should be, in our opinion, well intermixed. The best English grape growers, with one or two exceptions, advise this.

The planting of the vines and general management is nearly the same as we have already laid down.

In the forcing of the vine, Mr. Allen has had excellent success; and his remarks under this head are of great value. For several years he has exhibited fine fruit in May and June, which has attested his successful management. It is this portion of the work which will be read with great interest, for although we do not expect the number of cultivators will be numerous, who will attempt forcing, in comparison with those who rear the grape in cold houses, yet the directions are so explicit, that, with good judgment, and proper attention, those who would make the attempt will be successful, if his directions are followed. To the work we must refer for these in detail.

We only here notice some of the general rules which are laid down:—

“If it is intended to winter-force, you must not commence the process, the first year, before the first of March; the second year, you may begin.

the middle of February; the third year, the first of February, and so on, fifteen days earlier every year, until you reach the first of December; beyond this you can hardly go, as this allows only time to prune and clean the vine after it has gone into rest.

In a house that is forced in December or January, every year, ten pounds of grapes is quite as much as each vine will perfect, on an average of years."—p. 23.

From the Diary of the vines during the last winter, we learn that fires were first made, and forcing commenced December 20th, 1846. First flowers opened February 15th. Grapes began to color April 10th. Fully ripe May 20th. Being a period of five months.

The retarding of vines has been tried by Mr. Allen. And he still continues the practice, producing grapes by the means very late in autumn. The treatment of the vines is the same as for the grapery, the only difference being the exclusion of the sun by shading with mats, to keep them back as much as possible. The vines are usually retarded about ten days:—

"Early in March, the sun must be excluded from the house; this can be done by spreading sails, or mats, over the glass; the doors and lights must be open day and night when the temperature is above freezing.

In May, when the vines push their buds, the covering must be removed from the glass: keep the temperature as low as possible, night and day, during the summer; the end of May, or early in June, the vines should be put to the rods, or trellis.

Early in July, the grapes will be in blossom; apply the sulphur now to the floor of the house, and observe the vines carefully during this and the next month; if the mildew appear on the wood, fruit, or foliage, shut the house at night, and apply more sulphur. Never allow it to remain on the fruit; if, by accident, any should get on, brush it off immediately,—opening the house by day, as in any grapery. Early in August, the grapes will require to be thinned.

In October, when the nights become cool, close the doors and windows, (*where it has not been done before on account of mildew,*) giving as much air, and keeping as low a temperature, (*when the sun shines,*) by day, as possible.

In November, small fires must be made and kept up in the night-time and in cloudy weather.

The fruit will be ripe the last of November and in December; after which, the house must be kept as dry as possible, having sufficient fires to keep out the frost.

After the fruit and foliage are off, prune the vines, and protect them from the frost."—pp. 31. 32.

We believe the process of retarding grapes, as practised by Mr. Allen, will soon be generally adopted by gentlemen who are desirous of having grapes upon their tables half the year, without forcing, and at little expense. If the proper kinds are selected, the fruit will hang upon the vines in excellent order till January. The Black Hamburgh, Wilmot's New Black Hamburgh, West's St. Peters, St. Peters, (old,) Black Prince, and Syrian are the principal sorts.

In our January number (p. 43,) we presented our readers with an excellent paper by Mr. Allen on the merits of thirty-two varieties of grapes which he had fruited in his collection. Among them are included nearly all the sorts he recommends for cultivation. He has, however, given a list of names of upwards of fifty kinds which are found in foreign collections, some of which he has already proved. Two years hence the qualities of all of them will be ascertained from vines in Mr. Allen's, and other collections around Boston; and we shall not fail to give our readers an early and full account of them, especially such as prove valuable acquisitions.

The concluding chapter is devoted to an explanation of the different systems of pruning and training the vine. Mr. Hoar's plan is first noticed; next the ordinary method of long canes; and last the spur system.

In conclusion, we may recommend this little treatise to the attention of every grape-grower, convinced that he will rise from its perusal, with a better knowledge of the proper treatment of this most delicious fruit.

MISCELLANEOUS INTELLIGENCE.

ART. I. *General Notices.*

Propagation of Plants for the next Season.—The summer garden is now in its glory, and amply repays its possessor for all his expense, labor, and care. Verbenas, petunias, and other creeping plants nearly cover the beds; pelargoniums, salvias, and fuchsias have assumed their deep and rich tints, and dahlias rule over the whole in profuse magnificence. The amateur begins to take breath for a while, and basks in the paradise himself has created. Weeds are now less luxuriant, and lawns appear to repose in their rich green, sometimes, indeed, too much imbrowned by the summer suns.

From the present time till the middle of September, this beauty will rather increase than diminish, and the labor demanded will be less than at earlier seasons of the year.

But we must intrude upon this state of repose by the note of warning and remind the amateur that, if he wishes a repetition of the scene before him next year, he must propagate at once. Many plants should now be well rooted, such as wallflowers, pinks, and carnations; biennials should be sown, and roses budded. But it is to the propagation of exotic plants, requiring the management of a frame, that I now call attention, and would advise the following mode of treatment:—First, let a gentle hot-bed be made. If you have a spent melon or cucumber bed, that will do, if the old dung is mixed, to the depth of a foot, with leaves and mowings of grass. You may either insert your cuttings in the mould in the frame or in pots. The latter plan is preferable on many accounts; the cuttings strike easily against the sides of the pots, and they can be moved more readily. Indeed, many things will be best left together in the striking pots until the spring, and consequently they should be grown in a vehicle which can easily be removed. The soil should be fine, yet porous, having a good portion of sand mixed with it.

As a general rule, the cuttings should be wood of this year's growth, having consistency and strength at the part to be inserted in the ground. *Pelargoniums* strike without any difficulty, and will scarcely fail under the most ordinary management; other plants are more difficult, yielding more easily to damp, wind, &c. Let every cutting be taken off at a joint, and inserted firmly into the soil. If the soil is moist, water need not be applied, except in small portions. It often happens that an excess of water causes a cutting to perish. Skill is shown in keeping the leaves from drooping; for, if they do so to any extent, they seldom recover their crispness; and every gardener knows that a cutting with half-withered leaves has little chance. Place the pots in the frame as soon as they are filled, and keep them close for a few hours. Attentively watch them; pick off dead leaves, and maintain a gentle heat. By treatment of this kind, and by remembering the different habits of the woody and the succulent varieties, you will accomplish your purpose, and be independent of nurserymen and friends another year. Do not be afraid of having too many; but cut wherever you can without injuring the beauty of your beds. Some are sure to die, and by misfortune, many may. Provide an abundance, and then you will be able to do to others as you are often glad they should do to you—give some away.

In looking over the propagating department of the garden at Putteridge, belonging to Colonel Sowerby, I was surprised to find that, under the hot suns of May, thousands of cuttings just put in did not flag in the least, although they had no shade but the glass. Mr. Fish informed me that this was accomplished by keeping the plants a sufficient distance from the glass. By this simple arrangement, the light becomes diffused before it reaches the plants; whereas, if the glass were too near, they would require shading, or be parched up. With these hints, added to his own experience and obser-

vation, it is hoped the reader will secure for himself another season of as great beauty and abundance as I presume he is enjoying at the present time.—(*Gard. Chron.*, 1847, p. 541.)

Pruning the Banksian Rose.—This rose differs widely in appearance from other roses, and the difficulty experienced by many in inducing it to grow and flower freely, points out the error of treating it as other roses. It is met with in the regular course of business, and the question that it is a rose being satisfactorily determined, it is pruned as a rose; the how, when, and where being never once thought of. Hence the cause of the disappointment that so frequently ensues. Now, how pleasant it would be, if, with a little management, the many barren plants could be induced to change their character, and thus convert barrenness into a source of admiration and delight. To accomplish this end, do not prune the Banksian at set seasons, as with other roses. It is disposed to form strong shoots in the summer time. Watch for the appearance of these, and, so soon as they are about a foot long, pinch off their tops. In consequence of this check, they will form laterals, which become well ripened, and flower with certainty. It is necessary to cut their tops off early in spring, and from this period the plants should be watched throughout the growing season. Where too many shoots arise from one spot, let some be broken out entirely when young, and let the others be stopped when they attain the length before mentioned. There was a plant which covered one side of a house in this neighborhood, but which was unfortunately destroyed by the severe frost during the winter of 1837-8. It was subjected to the treatment mentioned above, and produced annually thousands of its beautiful blossoms.—(*Ib.* pp. 541, 542.)

Replacement of Branches in Fruit Trees.—I observed that Monsieur Jamin (Paris) whenever his pear trees, trained distaff fashion, required a branch, he made, in the autumn or winter, an incision above a dormant eye through the bark and down the sides, and that this process invariably produced a branch. I have followed this plan last year with success, except that, in some instances, a bloom shoot, instead of a leaf-shoot, has been produced. I observe that Mr. Rivers has not yet explained the rationale of double-working refractory pears. I suppose he will if he can. I have a tree of the purple-leaved filbert, which, last year and this year, bore fruit, and a few of them, the husks being of a beautiful purple brown, mixed with the common sort, is very ornamental in a dessert-plate. The tree itself is nearly as beautiful, as a shrub, as the purple beech.—(*Ib.* p. 541.)

Autumn Pruning Fruit Trees.—The present is one of the most important periods of the whole year as to giving due attention to fruit-trees. The autumn will soon approach with rapid strides, the solar light become much diminished, and the soil perhaps starved by heavy rains. It will then be too late to talk of the benefits of light to trained fruit-trees. We are of opinion that all tender fruit-trees, trained, will now be benefited by a constant stopping of the growing shoots. Any amount of control may be exercised over the roots by such means. Of what use is the excitement of so late a root action as we frequently see encouraged by means of enriched

soils and the neglect of stopping? As much of the ascending current as will keep the leaves well fed and sustain their color, will, we believe, be quite sufficient after the middle of August. In looking over peaches and nectarines, it will be found that many of the shoots, which were deemed necessary and nailed in for succeeding crops, will begin to overlap each other. We stop many of these at this period without hesitation. Pears, too, whatever superfluous shoots may have been retained—with the idea of preventing the blossom-buds of next year from “breaking”—should now be well shortened back. In doing this, there is no occasion to strip them entirely away; this would remove too many valuable organs. Our practice is, and we are very successful in pear culture, to merely shorten them sufficiently to admit the sun’s rays with freedom. The stumps cut thus back (each carrying three or four efficient leaves) will assist in producing elaborated matter, both to feed the fruit and to invigorate the embryo blossom buds, now actively engaged in depositing food for a healthy development in the ensuing spring.—(*Ib.* p. 544.)

Culture of Vines in Pots.—At p. 292, “A Novice” requested information on this subject, and, as the call has not been responded to, I venture to send you the details of a practice which will afford ample success, if followed out. Any variety may be fruited in pots, but there are some which ought to take the lead, either in a limited, or extensive, collection, amongst which are the Black Hamburgh; the White Muscat of Alexandria, which is a truly splendid grape, in pots, and much more certain in setting the fruit than when planted in the border; the White Frontignan; Chasselas Musque; St. Peters; and, for very early forcing, the White Verdelho: these are established favorites, but others may be introduced when variety is desired. Propagation should be effected from single eyes, and it will be necessary to consider if they will be required for very early forcing, or not, because it is well known, that a vine acquires a constitutional habit of breaking early, or otherwise, accordingly as it has been treated.

If required for early purposes, prominent eyes should be chosen, from early forced vines. The mode of making the cuttings is immaterial, provided there is a portion of wood, say an inch, left on each side of the eye; make the cuttings at the time of pruning, and preserve them in sand. At the time of starting, which may be from the beginning of December to the end of February, prepare some eight-inch pots, by half filling them with broken crocks then, to within an inch of the rim, with a compost of light loam, leaf mould, and a little sand; lay the cuttings on this (horizontally, with the eye uppermost) pretty thickly, press them slightly down, and cover with sand; some prefer sand, but this is immaterial. They should then have the brisk bottom heat of a dung-bed. As soon as they are rooted, which they will indicate by starting into growth, they must be potted off into five-inch pots, and replaced in the frame, keeping up a brisk heat thereto, and giving them air at every possible opportunity, otherwise they will draw too much: the object is to induce a stocky habit. When these pots are well filled with roots, give them a shift into larger pots, and still keep them in the frame, until they have again rooted well, when they should be shifted into eight-inch

pots, and placed in the vinery. If it is desired to have fruit the next year, a portion of the strongest must be placed in the best situations, near the glass, and forwarded, by successive shift ings, into the fruiting pots; but, as these never succeed so well as canes from year-old plants, I always leave them, the remainder of the season, in the eight-inch pots, allowing them to make as much wood as they will, without stopping them, as this induces the formation of a good stock of roots. The compost for these shiftings should consist of strong, fibry loam, very roughly broken, with a little admixture of rotten manure.

In producing fruiting canes, from year-old plants, thorough drainage is indispensably necessary, and, unless this is carefully attended to, the results will be unsatisfactory. Therefore, presuming that the fruiting pots are at least fifteen inches deep, six at the very least should be open drainage, for which purpose I have found old bricks, broken rather small, to answer exceedingly well; amongst which, I have occasionally mixed some rough charcoal, with very good effect. The fruiting pots being thus prepared, select the strongest and best-rooted vines from the stock, and pot them into the fruiting pots at once. The soil I use, and should recommend, is chopped turf, from a heap which has been laid together one year, mixed with a few finely-broken bones; this is the best medium for their roots.

Some years ago, I happened to hear an exceedingly clever and intelligent man descanting on the culture of vines in pots, and he made a remark, which, I think it worth while to record, because it ought always to be avoided; he said, "vines are great feeders, and the more nourishment you can crowd into a pot, in the shape of rich manures, bones, and the like, the better it will be for them." To myself, who, at the time, was but a tyro in pot-vine-culture, this seemed plausible enough, but further experience soon convinced me of its fallacy: that they are gross feeders is quite true, but they must have stimulatives a little at a time, in a clear liquid state, and the medium through which this percolates, must be as porous as possible, in order that the spongioles may not be gorged with too much nourishment, otherwise the result is, long-jointed, weak, unfruitful wood. The three great requisites, then, are perfect drainage, pure soil, and stimulation, at intervals, in a liquid state.

When the vines are potted, place them in good situations along the vinery; or wherever the canes can be trained near the glass, and keep them liberally supplied with pure water until they have well filled the pots with roots, when they may occasionally have some liquid manure; the latter is best made by stirring sheep or deer dung in water, and leaving it to settle, using only the clear liquid; and always, in every stage, both that and the water employed should be applied in a tepid state. When the shoots have formed six or seven joints, stop them, and remove the lateral from the terminal bud, keeping the other laterals closely stopped at the first joint; this will cause the top eye to break again, and give the buds below increased strength to bear fruit; stop the canes again at five feet, and they will not require further attention than stopping the axillary shoots, and applying water. When the growth is over, prune off all the axillary shoots at once, and secure the

roots from frost. At the time of starting, let the pots be top-dressed ; a little fine bone-dust may be used amongst the top-dressing. Apply liquid manure once a week at first, and twice a week when the fruit is set ; but discontinue it entirely when the ripening process begins. Do not leave more than eight or ten bunches of fruit on each vine ; the bunches should be well thinned, and the growth judiciously, but not too severely stopped. After the fruit is cut, if the soil is all shaken out from the old plants, and they are re-potted in fresh soil, and headed down at the proper time, they will make superior canes the next year. By using a very porous soil with good drainage, and keeping up a good supply of stimulants, I have taken good fruit from the same vines four successive years ; this was done by training a young cane from the base of the fruiting one, and removing the latter as soon as the fruit was cut.—(*Farm. and Gard. Journal*, 1847, p. 4.)

Cultivation of Tea China Roses.—The following article, though relating to *Tea* roses, may be applied, in our climate, to some of the other kinds, and especially to the Bourbon, Noisette, and China varieties :—

Having seen in print, and often heard the fact remarked, that this description of rose rarely succeeds, if grown in the open borders of gardens near London, perhaps a few remarks, deduced from experience, might prove interesting, more especially respecting this particular family ; for it is admitted by every one, that no collection of roses, however small, can be complete without them ; their general appearance being so distinct, and, adding to this their delicate and tinted colors, the beauty of their foliage, and peculiar scent, renders them objects of special admiration to all who see them.

About three years ago, I for the first time procured several of these roses, and planted them in a south border, in ordinary soil, tolerably well manured, but they grew poorly, and made only a few blooms, and certainly did not repay the trouble they had cost ; and, moreover, the ground would have been better occupied in growing Verbenas, or other bedding plants ; and, by most people to whom I mentioned my disappointment, I was told that the suburban atmosphere was not sufficiently pure to allow of the growth of these roses. But, determined not to abandon their cultivation without a further trial, I removed them, in the autumn, into a much richer soil ; but, in spite of carefully protecting them from severe frost, I lost about half during the winter ; those, however, which survived, grew and bloomed beautifully through the summer and autumn, and which tended to show, that soil and treatment had more influence than the slightly impure atmosphere ; and, encouraged by this partial success, I determined, if possible, to render it more general in the following season ; and, being convinced that damp was the cause of so many dying in winter, I saw that it was essential to provide drainage.

As my garden is not naturally drained, nor is it exactly practical to do so artificially, I therefore adopted the following plan to effect that object, upon that part where I intended to plant these roses, by taking away the earth entirely to the depth of about 12 or 13 inches, and then filling up 2 or 3 inches with stones, or other rubbish, and placing a little moss or straw above,

to prevent the earth mixing with the drainage, and which I find answers every purpose, except during the heavy winter rains, when the water cannot pass off quickly enough below the drainage; and, to rectify this, I dig, early in the autumn, a deep trench at the end of the border, into which the water runs, and which might otherwise lie stagnant amongst the soil and stones, and but for this precaution, all the pains taken might be rendered nugatory.

Having said so much about drainage, if not too tedious, I will now proceed to describe the soils, and their proportions, which I used to carry out my experiment. I divided the space of ground, above described, into four parts, and filled up the first with equal portions of earth I had taken out, and manure, (remains of an old hot-bed;) the second, with two-thirds of common meadow turf, and one-third manure; the third, with manure entirely, as recommended by Mr. Rivers in his last year's catalogue; and the fourth, having exhausted all the manure, I used instead, scalded sphagnum about one-third, turfy peat one-third, and one-third of ordinary soil; and, in each case, I have been fully remunerated for the trouble taken, by the vigorous growth maintained, the abundance and constant succession of bloom, and the beauty of the individual flowers; and, although in each of the soils tried the result was satisfactory, I will just mention the differences observable between them. In the first-named soil, the growth was vigorous, and blooms good and abundant, and the plants but slightly cut by frosts in winter. In the second, the growth was more vigorous, and the blooms finer than the first, and not more than a few twigs killed by the frost. In the third, the growth was exuberant, and the foliage magnificent, but the blooms were not so abundant as in the preceding cases, and sometimes singular abortions or sports were produced—affording strong evidence of the validity of the theory of morphology. They, however, had so strong a disposition to grow during the mild rainy seasons in autumn and winter, that some were much injured by the frost, and others quite killed;—and the fourth, the result was similar to the first, with the exception of being a little more injured in winter.

It will, therefore, be seen, all points being considered, that, in the case where two-thirds turf and one-third manure was used, the roses succeeded best; the cause of which appears to me quite obvious, in the fact of the requirements of the plants being better supplied in this soil than in the others, viz., free access to the roots of atmospheric air, and being a soil that would not bind, the roots meet with no check in their progress, and nourishment is supplied through the most advantageous medium, and from the best source, the soil never containing more moisture than it holds by capillary attraction.

I must, however, just advert to protection during winter, respecting which I can only give the result of two years' experience, having both seasons tried about equal numbers, by protecting the roots of some with moss, about 6 inches thick, as recommended in Mr. Rivers' catalogue, and others by laying branches of evergreens or fern over them, while others have not received further protection than merely placing saw-dust, or cinder-ashes,

about an inch thick over the roots, and although the roses to which the latter method was adopted, appeared to have suffered most from frost, they, in reality; were the least injured, which was clearly proved, in the ensuing summer, by their growth being, upon the whole, more vigorous than the others, particularly the bottom shoots and suckers. I account for this latter plan proving best, from the circumstance of the two former harboring too much damp, which is more destructive to the roots than moderate frost.

The aspect in which these roses are grown to the best advantage, appears to depend entirely upon the season. If placed facing the south, (being so excitable,) they are more apt to grow during warm winters and early springs, and which renders them liable to be cut off by frosts; in such a case, the south is a bad aspect; but if, on the contrary, the winter is cold, there cannot be a better. For average seasons, however, I think, against or near a west wall, is the best situation, as it is, to a great extent, protected from the north-easterly winds, and catches but little of the early spring sun, and, when they do, it is not till late in the day, so that, should a frost have occurred in the night, the thaw will necessarily be more gradual than in a southerly or easterly situation, an item to which too much attention cannot be paid.

These roses seem to receive great benefit from the application occasionally of weak guano-water. I have also tried super-phosphate of lime, but upon these soft-wooded sorts it does not appear to have much or any effect, although on the hard-wooded kinds it may be most beneficially used.

These roses are often grown to great advantage, budded either on the Wild-Briar or the Boursault, for, although they are sometimes liable to failure, still, when they do succeed, they prove very beautiful.

For pot-culture, the Tea China roses cannot be too strongly recommended, as they are so grown, with the greatest ease, to perfection, taking care that the soil used is rich and open, (turfy,) and that good drainage be provided. Indeed, I think many of the more delicate, weak-growing varieties, such as *Elisa Sauvage*, &c., are suitable only for pots, as in the open borders they are often subject to failure. The comparatively hardy and vigorous varieties, such as *Devoniensis*, *Comte de Paris*, *Josephine Malton*, *Bougère*, &c., cannot be too numerously cultivated, or too strongly recommended for growing in beds or otherwise, more particularly the first-named one.—(*Gard. Chron.*, 1847., pp. 467, 468.)

Vine Borders.—Having already passed my opinion in favour of concreting the bottom of vine borders, perhaps I may be permitted to speak in defence of concreting their surface, though I have no personal experience of its good results. As we cannot command the sun's powerful exhalations in all seasons, or give them the crevices of the rock for their pasture, we must substitute something else; but is it not wrong to call concreting the surface of the borders a new practice? The material may be; but everybody knows how well vines grow, and bear, with their roots under flag-stones, and I have no doubt but many of your readers may remember *Preston Hall Gardens*, in *Mid-Lothian*, (the scene of Mr. Hay, the late garden architect's first labors,) where there was a range of houses between three and four hun-

dred feet in length, with a broad gravel walk close up to the front of them, kept hard and smooth, so that moisture could not penetrate; and I never heard of such a thing as shanking there: whereas, in the gardens of Oxenford Castle, close by, I well remember, during the wet summers of 1816 and 1817, when I was a pupil there, a quantity of the late grapes were not fit to send to table; no fault could, however, in consequence, justly be laid to the charge of my worthy preceptor, Mr. Shiels, whose fame as a grape-grower, the Horticultural Society of London has established, nor could it be imputed to the want of proper drainage, for there was commenced, and well-performed, that system which has since made the name of the Earl of Stair so famous; but the soil was cultivated stiff, and very rich. In the gardens of Marham some vines have been lately planted in some Pine-stoves, and those that have the surface of the borders covered with gravel, quite firm, are far more prolific than those where the border is cultivated; and, completely eclipse the vines planted in a house that (if my information is correct) had twenty pounds' worth of ground-bones mixed with the soil. So much for "pabulum." I believe the simplest, and the best, composition for a vine border, is light loam, brick rubbish, and farm-yard manure, not much decayed, in equal proportions, and to be well-drained.—(*Farm. and Gard. Journal*, p. 4, 1847.)

ART. II. *Foreign Notices.*

Exhibitions of the London Horticultural Society.—The exhibitions of this Society for the year have been exceedingly fine, but, from the great length of the reports, we have been unable to find room for them. The exhibition of pelargoniums having been exceedingly fine, and many amateurs feeling an interest in this flower, we have made room for the following account of them:—

The collections of Pelargoniums were more numerous than on former occasions. The display was very effective, and rendered more interesting than usual, by the general introduction, in the different stands, of the new and improved varieties. One feature, in this exhibition of Pelargoniums, must not be allowed to pass unnoticed; we allude to the collection from E. Foster, Esq., of Clewer; these plants were specimens of superior cultivation, and were grown and exhibited without sticks or other mechanical supports. They were grown in 8 inch pots; the plants were very large, and the only training they appeared to have been subjected to, was in the lower shoots having been tied down horizontally, and inclined downwards to spread out the branches, and conceal the surface of the pots; having been thus secured, they appeared then to have been allowed to take their natural course upwards, growing with great luxuriance, having thick branches, with large and healthy foliage, and with stout and well-developed flowers. The contrast afforded by the exhibition of these plants, and the regulated management applied to the other collections, will no doubt be productive of great improvement in this department. The contrast showed clearly the faults on

either side, and that a union of the two styles, finding the happy medium, and keeping the means concealed by which the necessary degree of training is accomplished, will be most satisfactory for all purposes.—In the Amateurs' Class, for 12 new and first-rate flowers, grown with superior skill in 8 inch pots, the 1st prize was awarded to Mr. Whomes, gr. to E. Foster, Esq., of Clewer, whose sorts were Orion, Ariel, Lucretia, Pericles, Clarinda, Jenny Lind, Marion, Minerva, Armida, Ondine, Bertha, and Ardens. Mr. Cock, of Chiswick, obtained the 2d prize for Isabella, Duchess of Leinster, Sylvia, Hector, Zenobia, President, Rosetta, Minerva, and Miss Halford.—3d prize to Mr. Robinson, gr. to J. Simpson, Esq., who showed Juliet, Duke of Wellington, Sarah, Duke of Cornwall, Magog, Sunrise, Dido, Erectum, Rosy Circle, Orion, Matilda, and Aurora.—4th prize to Mr. Coysh, gr. to R. Hudson, Esq., for Oberon, Nina, Cleopatra, Nabob, Meteor, Champion, Beauty of Clapham, Sunrise, Lady Sale, Rosy Circle, and Matilda.—5th prize to Mr. Stains, for Hebe's Lip, Orion, Desdemona, Camilla, Aurora, Bianca, Sirius, Isabella, Rosy Circle, Pearl, Vesuvius, and Duchess of Leinster. In the same class, for Nurserymen, Mr. Dobson, gr. to Mr. Beck, obtained the first prize. His collection contained Competitor, Centurion, Blanche, Emelie, Aurora, Cassandra, Princess, Desdemona, Pacha, Cavalier, Rosamond, and Hebe's Lip.—Mr. Gaines, of Battersea, received the 2d prize, for Lady Bulkeley, Lady Kitty, King of Saxony, Eximia, Orion, Princess, Hector, Model, Attractor, Salamander, Aladdin, and Shield of Achilles. For collections of 12 specimens grown in 11 inch pots, the 1st prize, in the Amateurs' Class, was awarded to Mr. Parker, gr. to J. H. Oughton, Esq., for Roulette, Adonis, Rainbow, Hesperus, Enchantress, Flora, Duke of Cornwall, Matilda, Emma, Duchess of Leinster, Hector, and Superba. The second prize, in the same class, was given to Mr. Goulding, gr. to T. Turner, Esq.; and the 3d to Mr. Higgins, gr. to E. Saunders, Esq. In the Nurserymen's Class, the 1st prize was awarded to Mr. Gaines, Battersea, for Witch, Cotherstone, Emma, Floridum, Lady Sale, Queen of Bourbons, Pirate, Miss Hulford, Alba Grandiflora, Princess, Lady Prudhoe, and Henrietta. The prize of £7, offered by "Philo," for the best 6 seedlings, not sent out, two years old, and by any raiser, excited much expectation; but strange as it may read, but two competitors appeared to contest the prize, Mr. Whomes, gr. to E. Foster, Esq., of Clewer, and Mr. Dobson, gr. to Mr. E. Beck, of Isleworth. The prize was awarded to Mr. Dobson, who produced 6 superior seedlings, remarkable for variety, quality, and form—Honora, Cavalier, Grandiflora, Centurion, Cardinal, and Gulielma. To the other collection, which contained some fine specimens, no names were attached.—(*Gard. Chron.*, 1847, p. 422.)

ART. III. *Domestic Notices.*

Springfield Horticultural Society.—We are gratified to learn that a society has been recently formed in this town. The first exhibition was held on

Friday, July 2d, and some very handsome flowers and fine fruits, particularly strawberries, were exhibited. From a report which has been sent us, we learn that "it fully equalled the highest anticipations, that could have been formed, of the abilities of our citizens to make a creditable exhibition of this character, whenever they were seriously called upon to do so. Of flowers, there were every variety which the season affords, including a most rich display of roses of every hue and form. A number of rare and elegant pot-plants, principally from the green-houses of B. K. Bliss and Mrs. Trask, added largely to the interest and beauty of the display. The number of contributors was large, revealing the gratifying and encouraging fact, that an interest, practical as well as theoretical, pervades the community to a very general extent. A few beautiful dahlias, notwithstanding this is not the season for them, were among the attractions present.

In fruits, there were some of the richest specimens of strawberries and cherries, that we ever saw. The former were particularly numerous and fine, and a large portion of them were from Cabotville and Chicopee Falls, the citizens of which villages contributed very essentially to each department of the exhibition, and proved that, comparatively, they are in advance of their brethren in this part of the town, in the attention which they bestow upon the science and practice of Horticulture."

The following is a condensed account of the flowers and fruits exhibited :—from B. K. Bliss, a splendid assortment of green-house plants, consisting of geraniums, *Gésnera zebrina*, *Achimenes picta*, salvia, &c.; also three yellow Persian melons, a species of muskmelon, fully ripe; one large and very beautiful pyramidal bouquet, one small do., one large flat do., one vase of pansies, one vase of cut verbenas, also a variety of cut flowers; all of which attracted great notice.

From James T. Ames, Esq., Cabotville, one Chinese Orange in full bearing; very fine plants of the Sago Palm, *Hoya carnosa*, Century plant; superb specimens of Hovey's Seedling, and Ross's Phoenix strawberry, one basket fine cherries. Splendid bouquets from R. Whittier, Esq. and Moody Ferre of Cabotville; also from Mrs. W. B. Calhoun, Mrs. C. W. Chapin, Miss S. Willard, Mrs. S. Bailey and Miss Isabella Clary. Mrs. Richard Bliss, a fine Orange tree in full bloom; also a fine display of cut flowers, and Hovey's Seedling strawberries.

From Lucius Harthan, Cabotville, fine specimens of Moss and Hybrid Perpetual roses; also magnificent specimens of Hovey's Seedling strawberries, the largest and handsomest exhibited. From T. W. Carter, Esq., Chicopee Falls, a magnificent pyramid of roses, cherries and strawberries. From George Merriam, fine black Tartarian cherries. From Charles Merriam, fine specimens of Early Virginia and Hovey's Seedling strawberries.

From George Bliss's garden, fine strawberries. Superior specimens of Hovey's Seedling strawberries were also exhibited by Mrs. W. B. Calhoun, J. Hitchcock, Cabotville; Elizur Bates, Richard Bagge, Jr., and P. C. Davis, Chicopee Falls; also a fine lot from Dr. Bridgman, Cabotville, from

plants set out April 27, 1847. Fine cherries from Mrs. Chas. Howard, Dr. J. H. Grey, R. Whittier, Esq. and Dr. Bridgman, Cabotville. From R. E. Bemis, Esq., Cabotville, fine specimens of new potatoes, White and Black Heart Cherries.

In the evening, a Horticultural Society was organized under the act of incorporation passed by the last Legislature.

The following were chosen its officers :—

Wm. B. Calhoun, President ; Timothy W. Carter, J. B. Bridgman, Henry Vose, Vice Presidents ; B. K. Bliss, Secretary and Treasurer ; Rufus Whittier, D. M. Bryant, Richard Bliss, Henry Brewer, Jr., Lucius Harthan, Directors.

The Society starts under good auspices, and we trust will continue to be largely encouraged and sustained in its worthy objects by the efforts of our citizens. Such exhibitions, as that of yesterday, we hope will be repeated as often as may be convenient. They surely must exert a good influence over the minds and tastes of the community.—(*Springfield Republican*.)

Wendell's Mottled Bigarreau Cherry.—In our last number (p. 369,) we noticed the production of this new cherry by our correspondent, Dr. Wendell of Albany. We have the pleasure of stating that a full description of it, accompanied with an engraving, will appear in our next number. It is a very superior variety.—*Ed*.

Seedling Peaches.—We have recently received from S. T. Jones, Esq., Staten Island, two seedling peaches, which ripened in his cold house as early as the 1st of August, and one of which was of very superior quality, being large, handsome, and of delicious flavor. We shall give a descriptive account of them in our next. Our thanks are due to Mr. Jones for his attention in forwarding the fruit.—*Ed*.

New Seedling Cherries.—Dr. Kirtland of Cleveland, Ohio, has raised several seedling cherries, which he has placed in the hands of Messrs. Elliot & Co., of that place, for sale. The following are the names :—Cleveland Bigarreau, Rockport Bigarreau, Late Bigarreau, Elliot's Favorite, Ohio Beauty, The Doctor, and Kirtland's May. Dr. Kirtland does not hold himself responsible for any description or statement Mr. Elliot may publish, but he has the fullest confidence that they will be correct.—*Ed*.

The Colmar d'Arenberg Pear.—We are surprised to see this new and fine variety advertised as the Winter Bartlett! For what reason this new name is given we are at loss to conjecture, unless to mislead those who purchase. There is no such pear, in truth, as the Bartlett, and to add the cognomen of Winter, and apply it to this new pear, which has always been received from abroad under one name only, that of Colmar d'Arenberg, is only tending to produce confusion and error. We trust no American nurseryman will coin new names for foreign fruits.—*Ed*.

Houghton's Seedling Gooseberry.—The exhibition of some very fine specimens of this variety, at a late meeting of the Horticultural Society, reminds us that we have neglected to notice it before. The great difficulty attending the growth of the large and fine sorts of English gooseberries is,

that, in most localities, the berries are rendered worthless by the attacks of mildew ; and the consequent disappointment has induced many to give up their cultivation altogether. Mr. Houghton's gooseberry is a seedling from our native kind, produced some time ago, and is considerably cultivated in Lynn, where Mr. Houghton resides. It is of only moderate size, but possesses a fine flavor, is a most extraordinary bearer, and in all seasons is remarkably free from mildew. The specimens which we have seen, induce us to recommend it for general cultivation, especially in situations where the large English sorts cannot be grown. We have no doubt, that with proper attention in the selection of seeds from the largest berries, other and improved sorts may be raised from this, and eventually a progeny of large fruited kinds, equal to the English, but possessing all the adaptation to our variable climate of the parent plant. We trust our hints may be acted upon by amateurs who have the leisure to do so.—*Ed.*

Exhibitions of Horticultural Societies.—The exhibition of the American Agricultural Association will be held in New York, on Wednesday and Thursday, the 8th and 9th of September.

The annual exhibition of the Pennsylvania Horticultural Society will be held at Masonic Hall, in Philadelphia, on Wednesday, Thursday, and Friday, the 15th, 16th, and 17th of September.

The annual exhibition of the New Haven County Horticultural Society will be held in New Haven, on Tuesday, Wednesday, and Thursday, the 28th, 29th, and 30th of September.

The horticultural exhibition of the American Institute will be opened at Castle Garden, New York, on Tuesday, the 5th of October, and continue open for several days.

Liberal Prizes for Pelargoniums.—We are gratified in being able to announce that our correspondent, Mr. E. Beck, of Isleworth, near London, has authorized us to place in the hands of the Massachusetts Horticultural Society the liberal sum of £7 sterling, to be awarded in the spring of 1848 for pelargoniums, in two prizes, viz. :—"one prize of £5 for the best, and one of £2 for the second best, exhibition of *six* plants of the most dissimilar and best varieties, cultivated with superior skill in *eight*-inch pots, open to all." Mr. Beck is strictly an amateur cultivator, but the reputation of his seedlings spread far and wide, and he was literally compelled, by the great number of applications for his seedlings, to consent to let out the plants. All his leisure time is devoted to the culture of the pelargonium, which is his favorite plant. The liberal offer of £7, to be distributed in prizes by the Massachusetts Horticultural Society, shows the interest he takes in the spread of a taste for his favorite flower, and we doubt not that we shall see, another year, specimen plants competing for the prizes which will compare with the splendid specimens annually exhibited by himself, and for which he has always carried off the highest prizes.—*Ed.*

Coe's Transparent Cherry.—A rather glowing account of this cherry has recently been published in the *Horticulturist*. An amateur friend, who has passed the spring and summer in Hartford, lately called on us, and assured us that the variety is not of so high a character as there represented ; that it is sim-

ply a very good cherry ; he has eaten it day after day, and he states that he considers it inferior to a very common cherry brought into Hartford and sold under the name of the Rocky Hill Honey-heart, a native variety, originated near Wethersfield, eighty years ago. Coe's Transparent is classed next to the Downer, "the finest American cherry:" some amateurs around Boston prefer Sparhawk's Honey-heart to the Downer, though both, in our estimation, have few equals. The varieties of cherries are so confused that we think few cultivators can really know what sorts are the best. The Black Eagle has been classed, this year, among the best which have been shown here, and has been awarded one of the special prizes of the Massachusetts Horticultural Society. We have plenty of delicious cherries, and unless the new sorts much surpass them in size, we think it quite useless to encumber our catalogues with their names.—*Ed.*

ART. IV. *Massachusetts Horticultural Society.*

Saturday, August 7, 1847.—An adjourned meeting of the Society was held to-day,—the President in the chair.

Mr. C. M. Hovey read a letter from E. Beck, Esq., Isleworth, near London, corresponding member, presenting to the Society, through him, the liberal sum of £7 sterling, to be appropriated as prizes for pelargoniums, as follows :—

"I wish to place at the disposal of the Committee, seven pounds sterling, to form two prizes for pelargoniums for 1848. Five pounds and two pounds for the best and second best exhibition of *six* plants of the most dissimilar varieties, cultivated with superior skill in *eight-inch* pots, open to all.

The thanks of the society were voted to Mr. Beck for his liberal donation, and the Corresponding Secretary was authorized to send Mr. Beck a copy of the vote.

Voted, That the Corresponding Secretary be requested to prepare and forward a letter of condolence to the family of their late Vice President, Jonathan Winship, Esq.

Mr. C. Downing, Newburgh, N. Y., presented the Society a bound copy of the 1st volume of the *Horticulturist*.

Voted, That the thanks of the Society be presented Mr. Downing for the same.

The following gentlemen were elected members :—James Lloyd, Thomas Briers, John Albee, Joseph N. Howe, Boston ; Thomas Leighton, Jr., William Leighton, Cambridge.

Adjourned two weeks to August 21st.

Exhibited.—**FLOWERS** : From the President of the Society, four plants of *Lilium lancifolium* album, and one seedling ; seven plants of *Fuchsias*, viz. : Mrs. Frederick Millbank, flesh-colored sepals and rosy lilac corolla, Cleopatra, flesh-colored sepals, crimson and scarlet corolla, new, large flower ; Sir Henry Pottinger, flesh sepals tipped with green, purple crimson corolla ; Exoniensis, and Lady of the Lake ; also *Gloxinia superba*,

Cartoni, rubra, grandiflora, a seedling, and three pots of Achimenes; Œil de Lynx, Fleur de Marie, Lawrencei, candidissima nova, Nymphæa alba, Standard of Perfection, speciosa, Eclipse, Egyptienne, and other phloxes, and several dahlias. From J. Breck & Co., a large collection of fine hollyhocks and balsams; fine specimens of Phlox picta, Œil de Lynx, Charles Kermesina alba, Wilderi, paniculata alba, and decussata alba; also a seedling raised by Mr. Richardson, the corolla of a purplish blue, flowers in dense corymbs; also another seedling of Mr. R. color of the flower approaching crimson—much darker than *P. Richardsonii*; also cut flowers in great variety, including perennials and annuals. From William Quant, six fine plants of crimson Cockscomb.

From Messrs. Hovey & Co., six hand bouquets and two mantel bouquets. From J. L. L. F. Warren, six plants in pots as follows:—*Stephanotus floribundus*, *Achimenes longiflora* and *picta*, *Ardisia crenulata*, *Fuchsia*, *Smith's Vesta*, and *Crœwea caniculata*, new; also, a fine show of *Gladiolus floribundus*, *gandavensis*, and *Belviderus*; a fine specimen of *Yucca gloriosa*, and a great variety of other cut flowers; also two large and eight hand bouquets. From Samuel Walker, a fine seedling phlox, flowers pink, with purple eye, arranged in panicles. From G. Gilbert, Plymouth, a fine display of native plants, including a profusion of *Orchis blephariglossis*, and *fimbriata*, *Sabbatia chloroides*, (pink and white,) *Lotèia cardinalis*, &c. Bouquets, cut flowers, &c. from H. Hazeltine, A. Bowditch, Rev. Mr. Barry, James Nugent, W. Mellar, John Parker, and J. Thomas.

Premiums were awarded as follows:—

Bouquets.—For the best six hand bouquets, to Hovey & Co., \$2.

For the second best, to J. L. L. F. Warren, \$1.

For the best pair of mantel bouquets, to J. L. L. F. Warren, \$2.

For the second best, to Hovey & Co., \$1.

For the best large vase bouquet, to John Thomas, \$2.

For the second best, to J. L. L. F. Warren, \$1.

PLANTS IN POTS.—For the best six, to J. L. L. F. Warren, \$2.

GRATUITIES.—For six fine plants of cockscombs, to W. Quant, \$3.

For a fine display of *Gladiolus* two weeks in succession, to J. L. L. F. Warren, \$3.

For a vase of indigenous flowers, to J. Thomas, \$2.

FRUIT.—From Messrs. Hovey & Co., six varieties of grapes, as follows:—Black Hamburg, Bourdales, Pitmaston White Cluster, Muscat Blanc Hatif, Grizzly Frontignan, and White Frontignan; also, Doyenné d'Ete and Mabelle pears the first a delicious summer pear, and the latter a desirable variety, being very melting and juicy, but not high flavored.

From J. F.* Allen, Black Hamburg and Wortley Hall grapes, (well colored;) Grosse Mignonne and Noblesse peaches, Franconia raspberries, Madeleine pears, Early Harvest apples, Black fig of St. Michael's, and Sweet Montmorency cherries: the cherries were of fine flavor. From A. D. Williams, Early Bough and Williams's Favorite apples; also Red and White currants. From J. Hovey, fine Early Harvest, and Williams's Favorite apples. From E. M. Richards, Early Bough, Early Harvest,

Early Nonsuch, and Early White Sweeting apples. From J. L. L. F. Warren, Fastloff raspberries. From Charles C. Grant, Moorpark apricots, White Dutch currants, and raspberries. From George Wilson, White Dutch and Victoria currants; both varieties were fine, and some clusters of the latter nearly six inches long. From J. Washburn, Red Astrachan apples. From Anson Dexter, Red currants. From J. Lovett, Knevett's Giant raspberries, Red Warrington gooseberries, (?) fine, and Houghton's Seedling; the latter variety very handsome. From Otis Johnson, Madeleine pears of fine flavor.

The Committee on Fruit have awarded the following PRIZES:—

STRAWBERRIES.—For the best specimens, Hovey's Seedling, to S. Richardson, \$6.

For the second best, Hovey's seedling, to A. Aspinwall, \$4.

For the third best, Hovey's Seedling, to I. Fay, \$3.

CHERRIES.—For the best specimen, Black Tartarian, to O. Johnson, \$6.

For the second best, Downer's late Red, to S. Walker, \$4.

RASPBERRIES.—For the best specimen, Knevett's Giant, to J. Lovett, \$5.

For the second best, Fastloff, to Hovey & Co., \$3.

GRATUITY.—For a seedling cherry, to S. & G. Hyde, \$6.

SPECIAL PREMIUMS FOR CHERRIES.—To M. P. Wilder, for the Black Eagle, \$5.

To S. Walker, for Downer's late Red, \$5.

VEGETABLES.—From R. Williams, three splendid varieties of wheat, with a specimen of chess from St. Joseph County, Michigan. From A. D. Williams, some fine Drumhead cabbages. From John Munroe, fine Marrow squash. From James Nugent, tomatoes.

August 14th. Exhibited.—FLOWERS: From Messrs. Hovey & Co., six plants in pots, comprising the following, most of them entirely new:—*Trachelium cœruleum*, *Gloxinia Cartoni*, *Cestrum roseum*, (new,) Maid of Orleans Jasmine, (double and beautiful,) and *Erica versicolor* and *vagans*; also six hand and one pyramidal bouquet, and fine double balsams. From Cheever Newhall, a plant of *Lagerstrœmia indica*, ten feet high, and six feet in diameter, full of bloom. From Joseph Breck & Co., fine double balsams, and a great variety of other cut flowers. From James Nugent, six hand bouquets, and fine double balsams. From J. L. L. F. Warren, two mantel and six hand bouquets, fine double balsams, gladiolus, and other cut flowers. From F. R. Bigelow, three flowers of *Cereus triangularis* on one stem. From T. H. Perkins by William Quant, splendid double balsams. From S. R. Johnson, fine double balsams and other cut flowers. From O. H. Mathers by Thomas Needham, very fine double balsams. From G. C. Crowninshield by John Quant, very fine double balsams. Bouquets, &c., from A. Bowditch, A. Dexter, John Parker, J. Thomas, Messrs. Winships, and W. Kenrick.

Premiums were awarded as follows:—

DOUBLE BALSAMS.—For the best display, to William Quant, \$3.

For the second best, to Thomas Needham, \$2.

For the third best, to John Quant, \$1.

BOUQUETS, &c.—For the best six hand bouquets, to Hovey & Co., \$2.

For the next best, to James Nugent, \$1.

For the best mantel, to J. L. L. F. Warren, \$2.

For the best pyramidal, to Hovey & Co., \$2.

PLANTS IN POTS.—For six plants, to J. Thomas, \$2.

For six plants, to Hovey & Co., \$1

GRATUITIES.—The Committee recommend a gratuity of \$3 to Cheever Newhall for a fine plant of *Lagerstrœmia indica*.

For a moss vase and bouquet, to J. Thomas, \$2.

For a pyramid of Flowers, to Miss Russell, \$1.

The Committee give notice that no premiums will hereafter be given for designs, nor for any other than hand or mantel bouquets until the Annual Exhibition.

FRUIT.—From J. F. Allen, Black Hamburgh grapes; Grosse Mignonne and Cooledge's Favorite peaches; Franconia raspberries; Black figs; Montmorency cherries; the Montmorency cherries were picked two weeks previous and laid aside, fully exposed to light and air, and were in a fine state of preservation. From C. F. Putnam, Jolimont pears. From T. H. Perkins, by W. Quant, green Persian melons. From the Pomological Garden, Charlomoniski and Tetofsky apples, and Rivers's Early No. 1 plums. From E. M. Richards, Summer, (of England,) Summer Rose, Early Bough, Early Harvest, and fine Red Astrachan apples; also a fine Christiana melon. From J. Owen, handsome Early Harvest apples, and Jargonelle (of the French) pears. From H. Vandine, three kinds of plums, and Sopsavine apples.

Messrs. Hovey & Co. exhibited eleven kinds of grapes, as follows:—Black Hamburgh, Wilmot's Black Hamburgh, Bourdales, White Frontignan, Muscat Blanc Hatif, Pittaston White Cluster, Red Chasselas, Chasselas of Fontainebleau, Macready's Early White, Grizzly Frontignan, and Chaptal, the last a new grape received from France, very handsome; also Doyenné d'Été pears, and Lemerrier cherries. From J. Hovey, fine Early Harvest, and Williams's apples. From J. Lovett, Red Astrachan apples, gooseberries, and beautiful blackberries. From S. Walker, Early Harvest apples. From J. L. L. F. Warren, Franconia raspberries, and Sopsavine apples. From J. Washburn, Red Astrachan apples; plums for a name. From B. V. French, large and fine blackberries. From Otis Johnson, White Dutch currants.

August 21.—An adjourned meeting of the Society was held to-day—Vice President Richards in the chair.

The following gentlemen were elected members of the Society:—Jesse Hall, James Ingersoll, William H. Milton, Boston; Hiram Brooks, Cambridge. Adjourned one week, to August 28th.

Exhibited.—FLOWERS: From Messrs. J. Breck & Co., a great variety of fine phloxes, including Eclipse, picta, Charles, Nymphaea alba, paniculata alba, grandiflora nova, Richardsonii, Wilderi, Frelinghuysen, rosea superba, Œil de Lynx, Fleur de Marie, &c.; also double balsams, verbenas, Didiscus cœrulea, and a variety of other annuals and perennials. From

Thomas Needham, a variety of fine phloxes, viz: Princesse Marianne, Van Houttei, Cromwell, Fleur de Marie, bicolor, &c.; also dahlias, marigolds, balsams, and other cut flowers. From Parker Barnes, phloxes and dahlias in variety, and cut flowers; also two superb specimens of *Ipomopsis picta*.

From Messrs. Hovey & Co., several new and fine phloxes, viz: Princesse Marianne, *Cel de Lynx*, *Kermesina*, *Nymphæa alba*, Goethe, a new and elegant striped variety, Blanc de Neuilly, Apollo, &c., these came too late for competition; also, plants of *Achimenes picta*, longiflora, grandiflora and patens, and *Gesnera tubiflora*; six hand bouquets. From J. L. L. F. Warren, six hand and two mantel bouquets; *Gladiolus floribundus*, *gandavensis*, *natalensis hybrida*, balsams, phloxes, and cut flowers in variety. Bouquets and cut flowers from S. Walker, S. R. Johnson, Anson Dexter, Messrs. Winship, John Hovey, Jas. Nugent and W. Kenrick.

Award of Premiums:—

PHLOXES.—For the best 10 varieties, to J. Breck & Co., \$6.

For the second best 10 varieties, to S. Walker, \$4.

For the third best 10 varieties, to Parker Barnes, \$3.

PLANTS IN POTS.—For the best six pot plants, to Hovey & Co., \$2.

BOUQUETS.—For the best six hand bouquets, to Hovey & Co., \$2.

For the second best six, to J. L. L. F. Warren, \$1.

For the best pair of mantel bouquets, to J. L. L. F. Warren, \$2.

For the second best pair, to James Nugent, \$1.

GRATUITIES.—To Hovey & Co., for two plants of *Gesnera tubiflora*, \$3.

To Parker Barnes, for two fine specimens of *Ipomopsis picta*, \$2.

To Miss Russell for a basket of flowers, \$1.

FRUIT.—From J. F. Allen, Crawford's Early, Noblesse, variety unknown, Grosse Mignonne, Lafayette, Cooledge's Favorite, and Belle Garde peaches; Hunt's Tawny Nectarine, Sugar Top, Summer Francreal, and Jargonelle pears; Black Hamburg, Gascoigne, Grizzly Frontignan, and Wortly Hall Seedling grapes, and Black Fig. From the Pomological Garden, Cheston or Matchless plums, and Sparhawk's apples. From Otis Johnson, Jargonelle, and Bloodgood pears; and Early Bough apples, fine. From J. L. L. F. Warren, English Jargonelle, and French Jargonelle pears; Sopsavine, and River apples. From A. D. Williams & Son, Williams' Favorite, and other apples; Jargonelle, and other pears. From J. S. Sleeper, Apricot plums. From O. H. Mathers, by T. Needham, Black Hamburg, Chasselas Musque, White Frontignan, Frankendale, and Chasselas de Fontainebleau grapes.

From Messrs. Hovey & Co., eleven varieties of grapes, as follows:—Bourdales, Chaptal, Chasselas de Fontainebleau, Grizzly Frontignan, Black Prince, Pitunaston White Cluster, Esperione, Black Hamburg, Muscat Blanc Hatif, Wilnot's Black Hamburg, White Frontignan. From A. Bowditch, Black Hamburg, and Royal Muscadine grapes. From H. Vandine, Early Black, Royal de Tours, Wilnot's Early Orleans, and Early Yellow Gage plums; also, a Seedling peach and Sopsavine apples. From E. M. Richards, Summer apple, Red Astrachan, Early Bough, Benoni, Red Juneating, and River, (fine) apples; also, Christiana

melon. From Josiah Lovett, 2d, Jargonelle pears; Early Cross plum; extra fine blackberries, and Red Astrachan apples, fine. From J. Hovey, Williams' Favorite apples, fine; and plums. From James Nugent, Sweet-water grapes. From James W. Sever, pears. From Samuel Tufts, Moorpark apricot. From Anson Dexter, Summer Francreal pears.

August 28th.—An adjourned meeting of the Society was held to-day—Vice President, E. M. Richards in the chair.

A communication was read from the Pennsylvania Horticultural Society, extending an invitation for delegates to attend their Exhibition to be held in September next.

Voted, That it be placed in the hands of the Corresponding Secretary, to reply to.

Voted, to adjourn for two weeks.

Exhibited.—**FLOWERS:** From J. Breck & Co., cut flowers in great variety. From Messrs. Hovey & Co., a great variety of Noisette, Tea and Bengal roses, and six hand bouquets. From W. Mellar, a variety of dahlias, among which we noticed fine flowers of Punch, Marchioness of Cornwallis, Arethusa, La Polka, &c. Cut flowers, dahlias and bouquets from J. Thomas, W. B. Richards, S. R. Johnson, P. Barnes, S. Walker, A. Bowditch, J. L. L. F. Warren, T. Needham, Jas. Nugent, H. S. Waldo, E. M. Richards, Messrs. Winships, W. Kenrick, and P. Barnes. From J. Quant, six plants of very fine cockscombs.

Premiums were awarded as follows:—

BOUQUETS.—For the best six hand bouquets, to Hovey & Co., \$2.

For the second best six hand bouquets, to A. Bowditch, \$1.

For the best pair of mantel bouquets, to J. L. L. F. Warren, \$2.

For the second best pair of mantel bouquets, to James Nugent, \$1.

GRATUITIES.—The Committee recommend a gratuity of \$3 to John Quant, for six fine dwarf cockscombs.

To Miss Russell, for a basket of flowers, \$1.

FRUIT: From the Pomological Garden of R. Manning, No. 1454 Van Mons, and Rostiezer pears,—the latter of the very first quality. From C. F. Putnam, Elizabeth, (Van Mons,) has continued to prove excellent and handsome. From J. F. Allen, five varieties of grapes, Hardwick Seedling, and Newington (?) nectarines, Crawford's Early, very fine, variety unknown, and a Seedling peach of delicious quality, Sugar top, and Summer Francreal pears, and Washington figs.

From E. Brown, Lady Haley apples, and Dearborn's Seedling pears. From Eben Wight, Red Astrachan, Benoni, and High top Sweeting apples. From Josiah Lovett, Bloodgood pears, Early Bough apples, and very fine blackberries. From A. D. Williams, Williams's and other sorts of apples; also Beurré d'Amalis pears. From Messrs. Winship, Winship's Seedling pear, which proves to be a fine variety. From L. M. Weld, Benoni apples, and St. Ghislain pears.

From Messrs. Hovey & Co., ten varieties of grapes, as follows:—Black Hamburg, Boudales, Muscat Blanc Hatif, Esperione, Zinfindal, Chasselas of Fontainebleau, White Frontignan, Black Prince, Grizzly Frontig-

nan, and Wilmot's Black Hamburg. From T. Needham, six varieties of fine grapes. From E. M. Richards, Benoni, Early Spice, Summer Pearmain, fine, Summer Queen, and Spice Sweet apples; also Christiana melons. From Samuel Walker, Summer Franc Real, and Williams's Bon Chretien pears. From J. L. L. F. Warren, Dearborn's Seedling pears. From Otis Johnson, Dearborn's Seedling pears and Early Bough apples, very handsome. From A. Bowditch, Black Hamburg, and Royal Muscadine grapes. From S. R. Johnson, Washington and Green Gage plums, beautiful specimens. From John Nugent, apples, for a name. From L. P. Grosvenor, Williams', a Seedling, River, Garden Sweet (fine,) Sugar Sweet, Mexico, Quince, Benoni, Hill Top, and Red Astrachan apples. From Isaac Fay, Washington, Royal de Tours, Duane's Purple, and Apricot plums. From J. Washburn, Lawrence's Favorite plums.

VEGETABLES.—From Mr. Crowninshield, by John Quant, some fine egg plants.

ART. V. *Obituary.*

DEATH OF CAPT. JONATHAN WINSHIP.—Died at his residence in Brighton, on Saturday, the 13th of August last, Jonathan Winship, at the age of 62 years.

We are pained in announcing the death of Capt. Winship, who is well known as one of our oldest nurserymen. His health has been on the decline for some time, but, with the hope of invigorating it, he visited the springs. Receiving no benefit from his journey, he returned home, and soon sunk under the effects of his disease.

Capt. Winship for a long period in early life was engaged in seafaring occupations. His first voyage was made in 1803, when he accompanied Capt. O'Cain, as clerk in the ship *Ocean*, and was absent three years. His second voyage was made, as Master, in 1805, when he was absent four years. In 1809, he sailed on his third voyage, and was absent seven years; during this time, he visited the North West Coast, and was engaged in the Fur trade and sale of Sandal Wood. He returned in 1816, and retired to his late residence in Brighton.

Always deeply interested in the cultivation of trees, which he had practised in his youthful days, he soon conceived the idea of commencing a nursery. The only one which then existed around Boston, was that of the late John Kenrick, father of William and John Kenrick, who still occupy the same premises. In 1824, in connexion with his brother Francis, operations were begun. The grounds which now comprise the nursery were then a barren pasture; only a small portion of them were ploughed up at first and devoted to trees; but year by year, as the taste for Horticulture has been disseminated and the demand for trees increased, the nursery has been enlarged, and it now covers about thirty acres of land, filled with a great assortment of trees, shrubs and plants.

Capt. Winship was one of the earliest members of the Massachusetts Horticultural Society, and has been one of the most prominent exhibitors ever since its formation. He has been on various committees, whose duties he has always most faithfully discharged ; and, at the time of his death, and for several years previous, was one of its Vice Presidents. No member had a deeper interest in the welfare of the society ; and though, within a few years deprived of the opportunity of frequenting the exhibitions, yet the reports show that he did not neglect to contribute liberally of the products of his large collection.

We need not eulogize his character as a man ; he was too well known to need this from our pen. He was gentlemanly and courteous to all who had intercourse with him ; honest and upright in every dealing. He has left behind him a large circle of acquaintances, who deeply sympathize with the bereaved family in the loss of a kind and generous parent.

HORTICULTURAL MEMORANDA

FOR SEPTEMBER.

FRUIT DEPARTMENT.

Grape Vines in the cold house will now be coloring rapidly, and will soon be matured. The house should be aired very early in the morning ; and, except in cold, cloudy or rainy days, left open till late in the afternoon ; keep the laterals pruned off. Vines in the greenhouse, or where the grapes have matured and been cut, should now have all the laterals which have been made since the *first* stopping, two eyes beyond the fruit in the spring, cut quite back ; this will admit air and light, and thoroughly ripen the wood, which is an important point in grape-growing. Let the house be aired day and night in good weather. Vines in the open air will need the same attention recommended for last month.

Strawberry beds may yet be made with success ; old beds, or beds planted in the spring should be kept clear of weeds, and the young runners laid in if plants are wanted for new beds. See directions of last month in reference to planting.

Cherry and other fruit trees budded last month will require some attention. See that the strings are not girdling the stocks, and if too tight let them be loosened and tied again with fresh matting.

Currant and Gooseberry Bushes may be safely transplanted this month.

Peach Trees should be budded this month.

FLOWER DEPARTMENT.

Dahlias will be in full flower during this month, and will require occasional attention. The main shoot should be kept tied up, and all superflu-

ous laterals cut out. The flower buds should also be thinned out when fine large flowers are wanted for exhibition. Repeated waterings over the foliage invigorate the plants more than the same quantity of water given at the root.

Neapolitan violets should be planted out now in beds, where they are to remain during the winter. A little protection will keep them in fine growing condition, and they will afford an abundance of blooms all the spring.

Nemophila, *Schizanthus* and *Mignonette* seeds may still be sown for a succession.

Chrysanthemums layered last month should be taken up and repotted, and placed in a half shady situation until they recover from their removal to the pots.

Pelargoniums should now be repotted. Let the plants be well shook out of the old earth and put into smaller pots, in a good compost, placing them in a half shady place till well rooted, when they should be exposed to the sun. Cuttings put in last month will be rooted, and should be now potted off.

Chinese primroses will now require large pots.

Heaths, *Epacris*, &c., if the roots have filled the pots, should be shifted into larger ones.

Pæonies should be transplanted this month.

Ixias, *Sparaxis*, and other cape bulbs, may be potted this month.

White Lilies should be taken up and re-set this month.

Japan Lilies will now require but little water.

Callas should be now potted.

Leschenaultia formosa should now be repotted, and the branches neatly trained to small stakes.

Roses planted out in the borders may be taken up this month and potted, preparatory to placing in the greenhouse or in pits during the winter. Cuttings put in last month should now be potted off. Plants in pots should now be shifted into a good rich compost.

Hyacinths and *Tulips* may be planted this month.

Azaleas should now be rather sparingly watered in order to ripen the wood, and induce the plants to form flower buds in profusion.

Herbaceous perennial plants may be safely transplanted this month.

Scarlet Geraniums bedded out may be taken up the latter part of the month and potted.

Heliotropes should be re-potted.

Verbenas for winter flowering should now be shifted into larger pots.

Victoria and other stocks for winter blooming may now be shifted into three inch pots.

Carnation layers should be taken up and re-potted this month.

Greenhouse plants of all kinds should now have attention, such as pruning, top-dressing, washing, &c. before being placed in the house next month: much labor may be saved by attention to this early.

THE MAGAZINE OF HORTICULTURE.

OCTOBER, 1847.

ORIGINAL COMMUNICATIONS.

ART. I. *On the Study and Pursuits of Botany.* By A. MITCHELL, M. D. In a Letter to the Hon. H. A. S. DEARBORN. Communicated by Gen. Dearborn.

DEAR SIR,—In the various branches of natural science, there are none of more ancient date than the study and pursuits of botany. The first account of plants may be traced to the history of the creation, by Moses; and from that period up to the birth of our Savior, when he noticed in his beautiful comparison of the lily of the valley, with the wisdom of Solomon, it continued to be a theme of study among the ancients; although rude in its conceptions and erratic in its views, it may be said to constitute the basis of this science; when the illustrious Linnæus, or the great northern light, emerging from obscurity, gave order and regularity to the study, which rendered comparisons more easy; and, from that date, the specific arrangement and physiology of plants engaged the attention of the most eminent men of the world, and laid the foundation of agricultural science.

The great civilizer of man was agricultural pursuits, and those patriarchal tribes which adhered to the strict rules of husbandry and agriculture, grew into power and became great and powerful nations, while the precarious subsistence of nomadic tribes, that have depended on the hunt and chase, are rapidly becoming extinct, and the time is not far distant when historical records will be the only proof of their existence.

In order that the naturalist should practically benefit his country, his mind should be placed on those objects that may

be analyzed and turned into the channel of real and beneficial use to mankind, adding to his comforts, and generating a supply for his wants. The phenomenon of abstruse studies will not be hindered in its progress by such a course; the real development of useful facts will gather a stronger body, and interest alone will support the practical results. The science of horticulture has greatly improved within the last few years in our New England States; there seems to be a general dissemination of love for the culture of flowers; among our ladies, this high order of taste, which embellishes the mind, and strengthens the reflective powers, shows that a pleasing revolution is going on, which, we trust, will pave the way for research and inquiries in botanical science that will show a well arranged herbarium in every young lady's boudoir. In the analysis and study of plants, something new and pleasing is revealed at every step, and the different analogies gives a wide scope to the thoughts, historically pointing out many things of sacred interest. Thus, the *Acánthus* vulgàre, or bears-foot, is supposed by Michælis to be the herb which formed the crown for our Savior's head, in the mock derision of his tormentors; others of eminence suppose it to be the tree called the naba, or nabka, of the Arabians; the Shittim-wood of Scripture is the black acacia growing in the valley of Sinai; the Arbor infelix is the tree on which the Romans hung their criminals; and the most ancient canoes are said to have been constructed from the bark of the *Cypèrus pàpyrus*. The manna of Scripture is said to be produced by a species of Tamarisk; and by the camel's-thorn (*Alhàgi mauròrum*;) a similar manna distils from a species of *Celastrus*, in India; likewise the common larch affords an inferior manna. Although those trees last mentioned produced a manna somewhat analogous to the manna of Scripture, yet its constituent principles in chemical analysis must have been different; as we have reasons to suppose that the manna which fed the children of Israel contained nitrogen, as putrefaction would take place if it was kept over night; this may be considered as an omnipotent design of their Great Preserver to combine all the sustenance possible in this species of food. The various trees which afford the manna could be introduced and cultivated with success in the tropical portion of our country.

Amid all the wonders which unfold themselves in the great temple of nature, there are some in its arcanum which we can but imperfectly comprehend or analyze. The ascension and circulation of sap, to perfect the growth and nutrition of plants, has employed some of the most able minds, without arriving at any satisfactory conclusions. I recollect, in the month of April, 1840, that a phenomenon occurred to me which attracted my attention. Being out one morning on a ramble in my favorite pursuits,* I discovered a specimen of a bird which I was desirous of obtaining perched upon the loftiest summit of a white birch tree, *Bétula populifolia*. A discharge of the gun brought down the bird, and, when stooping to pick up my game, I was much surprised at a continued shower of rain, in large drops, oozing from the bark of the branches of a large limb just above my head: this continuing unabated, I was forced to go from under the limb, to prevent my powder being wet when re-loading. As the leaves had not expanded, and the buds had just begun to germinate, I took particular pains to investigate the matter, as the sky was perfectly clear, and no more than ordinary dew on the grass. The location of the tree was near the base of a high hill, the ground very moist, and studded over with springs of water. The tree on examination proved to be of a healthy structure throughout, and no appearance of water dropping from the limbs of any other part of the tree except the branch alluded to; this, to all appearances, was sweating from every twig and ramification, from the junction of the limb with the main trunk to its termination. This continued for an hour, and I left. Returning that way late in the afternoon, the raining from the limb had but slightly diminished, presenting nearly the same appearance as when I left in the morning. By what law this singular ascension of the aqueous fluid could have taken place in a separate limb of the tree, I am not able to answer, as atmospheric pressure, the epidermis of the bark, are all combining obstacles to the influence of capillary attraction, without we consider the principles of hydro-

* He is a distinguished ornithologist, and has furnished several hundred beautifully prepared specimens of birds from Florida to Maine, for the museum of the Natural History Society in Portland.—H. A. S. D.

statics. Time and perseverance will effect a great deal: thus we see the barren hills of your native state changed into luxuriant fields by the science of agriculture and ingenious labor, its orchards hanging with rich clusters of golden fruit, while its gardens are embellished with every hue of the gaudy exotic and indigenous straggler, which shows that systematic regularity is the governing principle which superinduces so much comfort and wealth among an active and enterprising people. With great esteem, I am, dear sir, very respectfully yours, AUGUSTUS MITCHELL.

HON. H. A. S. DEARBORN.

ART. II. *Notes on Gardens and Nurseries.*

Pomological Garden of R. Manning, Salem, Sept. 1847.—The collection of fruits, gathered together after a long series of years by the late Mr. Manning,—though, at his death, the most extensive in the country,—has been augmented, by his son, by the addition of all the choicest varieties of recent introduction to notice. We recently availed ourselves of the opportunity to look over the collection, and passed a half day in noting down the characteristics of many of the varieties,—their vigor, productiveness, &c.

Mr. Manning will fruit upwards of two hundred kinds of pears the present season, a larger number than he has ever had in bearing, and among them some of Van Mons's numbered sorts, which now promise well. The fruit generally is larger and finer than in previous years, and some of the varieties have never been surpassed in size and beauty. A tree of the *Marié Louise* was literally loaded with fruit, some of which were of the largest size which this delicious pear attains. Many varieties received under new names have been detected as synonymes, but, as we hope to give our readers an article from Mr. Manning himself, we shall only allude to a few of these. More will undoubtedly be added to the list, when the fruit is mature enough to be eaten.

The Duchess of Orleans Mr. Manning thinks one of the best

pears in his collection : it is large and handsome, ripening in November, and fully equal to any pear of that season ; the tree is a very vigorous and upright grower, and, although so large a fruit, bears in clusters. Beurré Coloma proves to be the Capiaumont. The Tyson pear has again proved delicious, the tree a good bearer, and very vigorous. A Dix pear tree double grafted, on the quince, was loaded with a barrel of splendid fruit. Henkel is a great bearer, and a delicious pear, fully equal to the old St. Michael. Prince Esterhazy proves to be the Josephine. The Dundas continues to prove fine, a good bearer, and very handsome. Beurré Kenrick, named by Van Mons in honor of our friend Mr. Kenrick, is exceedingly large and handsome this year, and a good opportunity offered to test its qualities ; it has been very small in previous years. Eyewood is a great bearer, and Mr. Manning thinks it one of the best of Mr. Knight's seedlings. The Styrian is an immense bearer, and its good qualities entitle it to a place in all collections. Las Canas is producing very fine specimens this year ; though of only medium size, it is one of the most delicious pears ; it is productive, bearing in large clusters. Belle Lucrative (known also as Fondante d'Automne,) Fulton, Alpha, and other kinds, were loaded with fruit. The Fulton should be in every collection, and, for market, no sort can be more profitable. The Golden Beurré of Bilboa grows and bears well on the quince, and Mr. Manning esteems it among our very best varieties. The Calabasse Monstreuse, received by Mr. Manning direct from M. Duval, is in bearing, and is a large, good-looking fruit : it is, however, quite distinct from the Grosse Calabasse of M. Langelier. The Bezi de la Motte was loaded with some of the largest and handsomest specimens we have ever seen of this variety, which has always proved good here.

Of the numerous varieties of Van Mons which promise well are 365, 858, 1336, 1155, and 104. One called Rameaux has fine large fruit. Sullivan, so named by Mr. Manning, is an excellent pear. Beurré Adam looks well. Paradise d'Automne is one of the most vigorous trees in the Garden, as well as a good bearer ; in excellence unsurpassed. The Petre, a native fruit, has never been properly appreciated ; it is a regular bearer, and a fine pear. Nos. 135 and 1482 Van Mons, which

Mr. Manning has already noticed, (XII. p. 147,) are now producing large and fine specimens: as Mr. Manning received permission from Van Mons to name any of the numbered kinds which he received from him, we trust his son will avail himself of the opportunity to do so, not only with these two fine varieties, but with all the numbered ones which may prove worthy of cultivation. Nothing seems more objectionable to us than the dissemination of fruits under numbers instead of names.

Passing a Baldwin apple tree in full bearing, Mr. Manning stated that it was one on which he tried the experiment of changing the bearing year. It is well known that the Baldwin only bears every other year. To obviate this was the object of Mr. Manning; and, in the spring of 1846, he spent nearly two days in cutting off all the blossoms. It had the desired effect; this year, the tree is completely loaded with fruit. This experiment is valuable, for it shows that, in a large orchard, when the trees, by chance, nearly all fruit the same year, any number of them can be made to fruit in the alternate year simply by the labor of destroying all the blossoms. A tree of that delicious apple, the Minister, was full of fruit, and of very fine size; Mr. Manning thinks that this, as well as the Porter and Williams, only need a good rich soil and high cultivation to make the fruit free from the defects which many cultivators complain of in regard to these sorts.

A great number of apples were in bearing; but we had not time to examine them. Mr. Manning pointed out an English variety which he thinks a decided acquisition, being about equal to the Porter, of large size, roundish form, and with a pale yellow skin; it is the Golden Noble. The Garden Royal, a native variety, is also a superior early apple: the last specimens had just been gathered; it is deserving a place in the most select collection.

The trees generally have greatly improved in vigor during the last two years; but the constant cutting of scions has had the tendency to make many sorts unfruitful. Where the trees have had all the young wood taken off, the remaining buds, which ordinarily form fruit spurs, spring into growth, and make very long shoots. A Beurié d'Aremberg was one com-

plete and compact head of wood. Mr. Manning's grounds are in excellent order, and afford a rich treat to pomologists.

Garden of the Hon. J. S. Cabot.—The most extensive collection of fruits among our amateur cultivators is that of Mr. Cabot. Not only does it contain a very large number, but they are all of the very choicest kinds, and,—what is of more consequence,—grown so as to show what the real characters of the fruits are; all experienced cultivators are aware, that a pear frequently does not attain its true size and excellence the first or even second year of its bearing; the tree may be feeble, or it may be the peculiar habit of the variety; and, in consequence, many pears have been discarded, even before they had produced a perfect specimen.

Mr. Cabot's grounds in the city are about an acre in extent, and are filled with large trees, some of which have several kinds on each, and probably nearly a hundred kinds are in fruit. A short distance from the city, he has another garden, stocked with young trees of all the new pears to be had, several of which are already in bearing.

Among the new pears, he has one which he received from us as the Monarch, which we noticed some time since, (p. 155); it is a graft on the top of an old tree, and has upon it only three fruits; they now look like the true sort; but, in the course of a month, we shall be able to decide this; after so many attempts, it will be gratifying to know that we possess the genuine kind which Mr. Knight praised so highly. The Flemish Beauty, and Louise Bonne de Jersey are the handsomest objects among the pears: the latter, on a quince stock, was loaded with very large specimens, while, at Mr. Manning's, on the pear, they were not more than two thirds as large or as fair. The Flemish Beauty, we are induced to think, will prove to be the true Beurré Spence, which Dr. Van Mons thought was the best pear he ever raised; we have some speculations to offer on this head at another time. The Andrews here, as well as at Mr. Manning's, were large and splendid; this pear has never been properly appreciated; we place it at the head of our native varieties. Gendesheim is a great bearer, handsome and good; the Cabot is very handsome this year; Pailleau, first noticed by Mr. Manning in our Magazine, Mr. Cabot thinks a very desirable variety. The

Columbia, Winter Nelis, Beurré d'Arenberg, Van Assene, and others, were full of noble specimens. Indeed, we might enumerate fifty kinds, all of which were producing beautiful fruit.

Mr. Cabot has one of the choicest collections of herbaceous plants; but, with the exception of the phloxes, few were in bloom. *Clématis Sieböldii*, trained to a trellis, was covered with its beautiful flowers, and, with a little protection, it stands our winters without injury.

Mr. Cabot has entered zealously into the cultivation of seedling pears. Of seedlings of this year from selected seed, he has more than five thousand, and, of previous years, a large quantity, some of which are nearly old enough for bearing: all of them he intends to set out or graft with a view to the production of new varieties. With a few such cultivators, we might soon hope to have many additions to our collections of this fine fruit. Mr. Cabot's garden is a model of neatness in every part.

Grapery of J. F. Allen.—The culture of the grape is carried to a much greater degree of perfection than in former years, and especially in cold houses. Four years ago, (Vol. IX. p. 425,) we noticed Mr. Allen's place before the span-roofed grapery was completed. This house is upwards of eighty feet long, about twenty wide, eight feet high at the sides, and sixteen in the centre. It is planted with vines on each side, and the ends, about three and a half feet apart; and with two rows on each side of the central walk, about three feet apart, making in all upwards of *one hundred* vines in the grapery. Most of them are now in a bearing state, and embrace a variety of kinds. We noticed very handsome specimens of Wilmot's Black Hamburg, Wilmot's new Hamburg, (No. 16,) Tottenham Park Muscat, Aleppo, Syrian, Zinfindal, White Frontignan, Rose Chasselas, &c. These were all nearly ripe.

In the retarding house, which we have particularly noticed in our Review of Mr. Allen's work, (p. 410,) the early grapes were just beginning to color, while the latest ones appeared quite green: by the aid of the flue, these will be ripened off in November, and, with an occasional fire, will hang till January, thus continuing the supply for about ten months of the year.

The peaches in the peachery had all been cut, and the trees were ripening off a fine crop of wood for next year. Mr. Allen has raised a seedling peach of much merit, which he has called the *Manning*, in honor of the valuable labors of his townsman, the late Mr. Manning: its production was quite accidental; a sucker from a budded tree had made a very large growth before it was noticed, and Mr. Allen concluded to let it bear fruit: the result was, as we have stated, a very handsome peach only of medium size, but very high flavored.

Mr. Allen has succeeded in producing very handsome grapes, and amateur cultivators will be much interested by an inspection of his house when full of fruit.

Bridgewater, Sept. 1847. Residence of N. Stetson, Esq.— We have more than once alluded to the influence which railroads have exerted in the dissemination of a taste for horticultural pursuits, bringing together, as they do, town and country, and affording an opportunity for the more frequent inspection of collections in and around large cities, by which a taste is fostered and cherished, and imparted to all whose leisure permits them to avail themselves of the facilities of travel.

It is not often that we have been so highly gratified with a visit to our suburban friends, as in a recent trip to Bridgewater, and an inspection of the garden of Mr. Stetson. We were aware that he did not undertake any thing but what he carried out, but we were not prepared for so complete an exhibition of gardening zeal. It reminded us of our friend Johnson's fine place at Lynn, where it would require a very good opera glass to detect that pest of every ambitious gardener, a weed. Perfect neatness prevailed every where. This is the true secret of an attractive garden; for, no matter how rare or how extensive the collection, if slovenliness is shown at every step, the eye soon tires, and the mind becomes insensible to every thing which would otherwise astonish and delight. Mr. Stetson's garden we might term a *bijou* in its way.

The garden and houses cover about two acres of land situated nearly half a mile from the station of the Fall River Rail-road at this place, just within a proper distance to catch a glance of the cars as they go and return, and commanding a fine view of a prettily wooded country to the east, with the

Taunton River in the distance. The house is a substantial building, of some years' standing, but additions and alterations have been made by Mr. Stetson, which afford all the convenience and comfort which a country residence can possess. The ceilings and walls of the drawing-room have been elegantly done in *fresco* by an Italian artist.

Descending the steps from the veranda of the drawing-room, we alight opposite to the greenhouse; this, of course, at this season, was only a show of tasteful arrangement in the stage, consisting wholly of strips of cherry wood, running lengthwise, about half an inch apart, which covered the risers as well as the steps, a very neat mode of completing a greenhouse for an amateur: it is about fifty feet long, and fifteen wide, and the grapes which are intended to cover the rafters, have pushed about half-way up, having been planted last spring.

From the greenhouse, a walk leads to the grapery, which is a neat building, with a span roof, constructed on the curvilinear plan, precisely as described by us in our last volume, (XII. p. 377.) It is fifty feet long, and twenty wide, and built in the most thorough manner. The vines were planted out in the spring of 1846, and have made a very vigorous growth, with some of the strongest shoots nearly an inch in diameter. On each side of the centre walk, there is a row of vines, and some of them have been allowed to ripen a few bunches of fruit. Among the kinds, Mr. Stetson has the Prince Albert, Cannon Hall Muscat, Wilmot's Black Hamburgh, &c. &c.

Mr. Stetson has quite a number of wall trees, particularly of pears, embracing the newest and best kinds, such as Colmar d'Aremberg, which was producing two splendid specimens, one of them more than four inches long: this is stated to be a remarkable variety, and, if its quality corresponds with its size, it will be a great acquisition. Winter Nelis, Beurré d'Aremberg, and others of equal merit, had all made very vigorous growths, although only planted last year, and quite small trees. They are trained with much skill.

In the open quarters, the trees are vigorous and in fine health, particularly the peaches, which are entirely free from gum, canker, or that great pest the borer; although the stems are at least four inches in diameter. Mr. Stetson is some-

what lavish in the use of whale oil soap, and to this he attributes the cleanliness of his trees : two washings are given during the season, one in the spring, and the other in the fall, and, with this simple remedy, the trees are kept in the most perfect health. We have frequently recommended the application of soap, and are convinced its general use in the manner here stated would soon banish every borer, and many of the diseases which usually affect trees of all kinds, especially the peach. Some of the Crawford's Early measured nine inches in circumference. Mr. Stetson has a fine seedling which sprang up some years ago, and is now growing against the house to which it is trained. It is one of the most delicious as well as most beautiful kinds we have ever seen. The cultivation of the peach needs more encouragement in the way of premiums for superior specimens; for, while we have large amounts yearly distributed for the pear, the peach is nearly or quite forgotten.

We might name many of the kinds of standard trees in the garden, which embraces all the best kinds, but our space will not permit; in a year or two, they will produce an abundance of the choicest fruit. The wall trees will also soon begin to bear, forming a superior collection.

The native grape vines on trellises, and on the house, were trained with the greatest precision, showing how much can be done by a little care and attention in the early progress of the vine. The borders were filled with fine flowers: and the prairie roses and other climbing plants trained up to iron pillars. Indeed, no part seemed to be forgotten, and, with the additions which will be annually made, Mr. Stetson will possess one of the most interesting places in the county.

ART. II. *Notice of Three New Varieties of Fruit.* By HERMAN WENDELL, Esq., Albany, N. Y. *With Descriptions and Engravings.* By THE EDITOR.

DEAR SIR,—With pleasure I send you, for examination and notice, a few pears of a new variety raised from seed by a

Mr. Sterling, who resides near Buffalo in this state: it is called the Sterling pear: its history, as given me by Messrs. Wilson, Thorburn & Teller, nurserymen of this city, who own the tree, and from which I procured the fruit, is as follows:—Mr. Sterling, being on a visit to Connecticut some eighteen or twenty years since, ate of the fruit of a pear tree

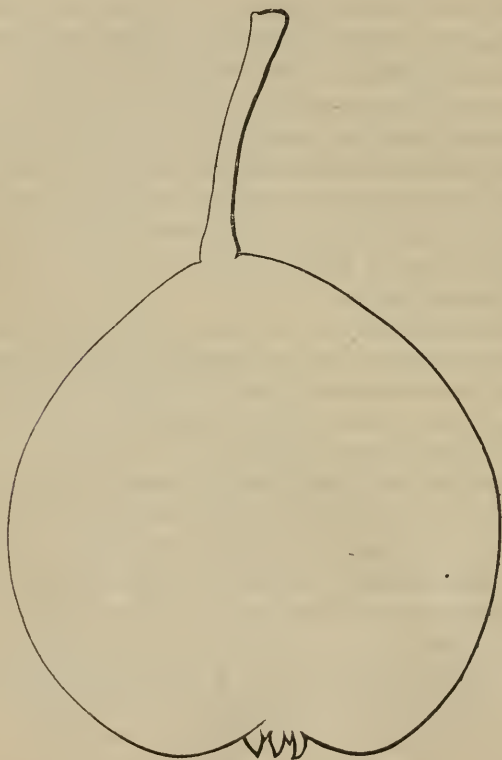


Fig. 36. Sterling Pear.

growing there, and saved the seeds. On his return home, he planted them, and succeeded in raising and fruiting several trees, all of which, with the exception of this one, proving worthless. Grafts were procured from him, brought to this city, and presented to the above-named individuals, by a gentleman whose residence is in this vicinity, and who vouches for the truth of the above statement. The tree is of thrifty growth and up-

right habit, and an early bearer. It is but two years since the grafts were inserted, and it has this year borne about two dozen pears.

I also send you a few plums of a very delicious character, taken from a tree growing in the garden of Mr. A. Van Voast of this city. It is called the Schenectady Catherine plum, and originated in a garden of that city. Trees have been growing there for several years past. I cannot account for the remissness of pomologists in that vicinity for allowing so valuable a fruit to remain unknown, comparatively, so long a time. I rank it among the very best, fully equal, in all respects but color, to the Reine Claude. It is a thrifty grower and prolific bearer, having borne large crops of fruit for several years past: its growth is similar to that of the Imperial Gage.

And, together with these, I send you a few specimens of the Judson plum, a valuable seedling, grown by a gentleman of that name residing at Lansingburg, some eight or nine miles north of this city. The tree is said to bear very heavy crops, and to be a thrifty grower.

Academy Park, Albany, N. Y., Sept. 3, 1847.

We are gratified in having the pleasure of presenting our pomological friends with the above notice of three new fruits, which possess great merit, especially the plums, one of which we class at the head of all the varieties we now possess. We add the following descriptions and engravings of the several kinds:—

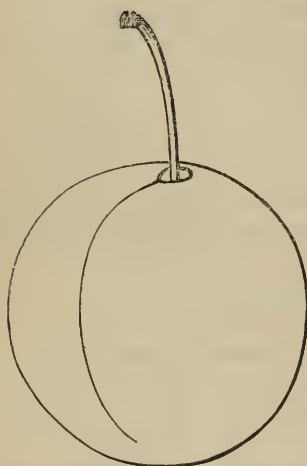
1. STERLING PEAR.

Size, large, about three inches long, and three inches in diameter: *Form*, roundish obovate, largest in the middle, tapering to each end: *Skin*, very fair, smooth, clear pale waxen yellow, beautifully marbled and shaded with red on the sunny side, with a small patch of russet at the base of the stem: *Stem*, long, about one and a half inches, rather stout, curved, knobby, swollen, and fleshy at the base, and inserted without depression: *Eye*, medium size, open, and slightly sunk in a small, smooth, shallow basin; segments of the calyx medium length, narrow, projecting: *Flesh*, white, coarse,

tender, half-melting, and juicy: *Flavor*, sweet, pleasantly perfumed and good: *Core*, rather large: *Seeds*, medium size. Ripe the last of August and beginning of September.

The Sterling pear, (*fig. 36*), is one of the handsomest early pears which has come under our notice; the skin having a clear waxen appearance, beautifully tinged with bright red. Though only second rate, its beauty, size, and great productiveness will commend it to cultivators, especially those who supply the market.

2. SCHENECTADY CATHERINE PLUM.



Fruit, medium size, about one and a half inches, broad, and one and a half long: *Form*, roundish, narrowing rather more towards the apex, which is little depressed, than the base; suture rather shallow, extending half round: *Skin*, rich deep purple, violet in the shade, slightly netted on the sunny side, and covered with a thin azure bloom: *Stem*, medium length, about three quarters of an inch, rather slender, and inserted in a very deep, contracted cav-

Fig. 37. Schenectady Catherine Plum. ity: *Flesh*, greenish yellow, fine, and very melting, separating freely from the stone: *Juice*, very abundant, of a honied richness, and deliciously flavored: *Stone*, small, thick, ovate. Ripe the beginning of September.

This variety, (*fig. 37*), is fully equal to the Green Gage, being quite as sweet, more melting, and exceedingly high-flavored. It must rank as the best purple plum yet produced, surpassing the Reine Claude Violet, both in size and excellence.

3. JUDSON PLUM.

Fruit, rather below medium size, about one and a quarter of an inch broad, and one and a quarter deep: *Form*, round-

ish, little flattened at the base, one side slightly larger than the other; suture shallow and indistinct, extending to the apex: *Skin*, of a fine clear violet red, slightly mottled with a deeper shade, covered with small fawn-colored specks, and a thin lilac bloom: *Stem*, medium length, about one inch, slender, and inserted in a small, rather deep hollow: *Flesh*, pale yellow, melting, and separating from the stone: *Juice*, abundant, rich, brisk, vinous, and high flavored: *Stone*, rather large, oval, compressed. Ripe the end of August and beginning of September.

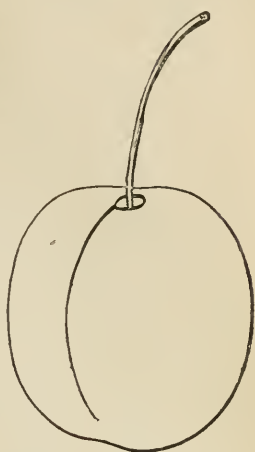


Fig. 38. Judson Plum.

The rich and beautiful color of the Judson, (fig. 38), will render it a great favorite, aside from its other fine qualities: though not quite equal to the Catherine, it ranks among the very best, and is deserving a place in every good collection.

We learn that Messrs. Wilson Thorburn & Teller have a few trees of each of the above sorts for sale.—*Ed.*

ART. IV. *Notice of Two Seedling Peaches.* By S. T. JONES, Esq., Staten Island, N. Y. *With Descriptions of the Fruit.* By THE EDITOR.

DEAR SIR,—I have forwarded to you a small box, containing specimens of two seedling peaches raised in my garden, and which have borne fruit the present year the first time.

They are considered valuable, not only for their size and flavor, but from ripening in advance of all the other peaches in my cold houses, and, I hope, may also meet with your favorable opinion.

My gardener, Mr. Kennedy, who, I believe, is a correspondent of yours, has distinguished the two sorts by the names of Jones's Early and Jones's Large Early.

The large specimens are somewhat remarkable from their obtuse form. In contact with each fruit, I have sent some of the leaves, by which the glands may be seen, but, at this time, our recollection of the blossoms is not sufficiently clear to give a description of them.

Cedars, Staten Island, August 3, 1847.

The specimens came safely to hand, in very fine order, and we were much pleased with them, and consider both of them acquisitions, though the Large Early is superior to the other. We annex the following descriptions of each:—

JONES'S EARLY.—*Fruit*, medium size, about two inches broad, and two deep: of roundish form, oblique at the apex; suture shallow, but distinct, extending around the fruit: *Skin*, yellowish white, beautifully tinged with pale red on the sunny side: *Flesh*, yellowish white, tender and juicy, slightly rayed with red at the stone, from which it separates freely: *Juice*, abundant, rich, and excellent: *Stone*, small. Ripe early in August.

Leaves, crenated, with small, globose glands.

JONES'S LARGE EARLY.—*Fruit*, large, about two and a half inches broad, and only two deep, of roundish form, much flattened at each end; suture deep, extending around the fruit, terminating in a small point, one half a little larger than the other: *Skin*, clear delicate white in the shade, greenish at the apex, and broadly shaded with deep crimson in the sun: *Flesh*, white, fine, and perfectly melting, rayed with pink at the stone: *Juice*, very plentiful, rich, sprightly, and delicious: *Stone*, medium size. Ripe early in August.

Leaves, crenated, with reniform glands.

ART. V. *Pomological Notices: or Notices respecting New and Superior Fruits worthy of General Cultivation.* By THE EDITOR.

WE have been awaiting an opportunity to present our notes on the new fruits of the last season, but the favors of our correspondents—thanks to their kindness—have occupied all our

space, and prevented us from doing so. As the season is now at hand when amateurs will be making their selections of trees for fall planting, we shall now note down what we have on pears, and defer our remarks on other fruits until another time.

During no year since the introduction to notice of our native pears by Mr. Downer, in 1829, have we known so many American sorts of equal merit to have been made known. The Swan's Orange, Reid's Seedling, Osband's Summer, Pratt, Moyamensing, Haddington, Kingsessing, Ropes, Rapelje, all good, and some of them unsurpassed, have been, in this period, brought to the notice of pomologists. Add to these, several foreign kinds, whose merits have been fully established, and the acquisitions of the last year or two have been of great importance and value.

Swan's Orange.—This has been so fully noticed in our account of it, (p. 67,) that we shall only remark that this splendid variety *must* hold the highest rank among pears.

Knight's Seedling.—A Rhode Island seedling, raised in Cranston, and first exhibited at the Massachusetts Horticultural Society in 1835, when it was pronounced fine. Since that time, however, it has been but little seen, and is comparatively a very new fruit. In size and appearance, it somewhat resembles the Belle Lucrative, and is nearly, if not quite equal to that delicious variety. We would suggest that it should be called Knight's R. I. Seedling, as many suppose it to be one of the late Mr. Knight's productions.

Pratt.—This is also from Rhode Island; it is a good sized pear, rather above medium, of oblong obovate form, with a yellowish green skin, thickly dotted with russet, and of excellent quality, though not equal to Knight's Seedling.

Osband's Summer is an early variety, ripening about the period of the Bloodgood, and fully equal, if not superior, to that sort. The size is rather larger than the Bloodgood, in shape similar to the Muscadine, with a pale yellow skin, dotted with green, and tinged with red on the sunny side. The original tree is growing in Macedon, N. Y.

Rapelje's Seedling.—Dr. Stevens of New York has just placed in our hands a specimen of this new pear, which is stated to have originated near Astoria, L. I. It is of medi-

um size, pyriform shape, with a dull yellow skin dotted and traced all over with brownish russet. The flesh is very juicy and melting, but without much perfume. It is an abundant bearer.

The Moyamensing and Haddington have been already fully noticed, (XII. p. 274;) an opportunity to taste them has enabled us to form some opinion of their merits; though very excellent pears, we do not place them among our best sorts.

Kingsessing.—This has just been brought to notice. It is, we believe, a native, found growing in the suburbs of Philadelphia. It is of medium size, oblong obovate form, with a pale green skin, and possesses a melting flesh, with a sweet and perfumed flavor, but little deficient in character. It is, however, worthy of trial.

Smith's Bordenave.—This is the name given to a very fine early pear, which fruited in the garden of A. Smith, Esq., Hartford, Conn.; the tree was imported from Bourdeaux, and it appears to be not only a new, but a very superior fruit. Size rather above medium, with yellowish green skin, melting flesh, and high perfume. We think it will form a decided acquisition. It ripens in August.

Reid's Seedling.—This variety we have given a full account of by one of our western correspondents, (XII. p. 198.) We have since learned, from other friends, that it is a very superior variety, fully deserving the commendations of our correspondent. We intend to figure it soon, with the others now noticed.

Last year, (XII. p. 339,) we briefly noticed several new Belgian pears which have been recently brought to notice, and, since then, some further account has been given of them in the French periodicals:—

Louise d' Orleans.—This is one of the productions of Van Mons, and was raised from seed in 1827, and first came into bearing in 1843. Col. Van Mons and his brother, in consequence of the superior quality of the fruit, named it, by permission, in honor of the Queen of the Belgians. In general appearance, it resembles the *Bonne des Zees*, a variety little known here, but which we ate in Paris in 1844. It is of medium size and oblong form, measuring about three inches in length, with a stout stem an inch long, and inserted in a shallow

cavity: skin of a bronzed green: flesh white, fine, and very melting: flavor rich, sugary and delicious. It ripens in October and November. It is stated that it must rank "the noblest of its kind."

Nouveau Poiteau.—Another variety from the nursery of Van Mons, raised in 1827, and fruited in 1843. M. Bouvier, who introduced it to notice, states that he desired to dedicate this pear to the intimate friend of Van Mons, M. Poiteau, Editor of the *Annals* of the Royal Society of Horticulture, and his sons favored his proposal. Fruit nearly pyriform, about four inches long and three in diameter, tapering into the stem: stem medium length, about three quarters of an inch, greenish, becoming paler when mature, marbled and speckled with red: flesh buttery and melting, with a rich and sugary flavor, perfumed like the Brown Beurré. Ripe in November.

Beurré Goubault.—A fine, large, new pear, raised by M. Goubault of Angers, with the B. Superfine and the Doyenné Goubault, each of which are stated to be desirable varieties. The size is quite large: skin of a greenish yellow, marked with dots: stem rather long and slender: flesh fine, buttery and melting, with a perfumed flavor. Ripe early in September.

Beurré Superfine.—Fruit large, measuring four inches long, and about three in diameter; somewhat irregular and angular: stem short, stout, and swollen at the base: skin yellowish green, becoming yellow when mature, more or less dotted and traced with reddish russet dots: flesh fine, buttery, and melting, with a highly perfumed and excellent flavor. Ripe the last of September.

Doyenné Goubault.—A large and fine late fruit, beginning to ripen in November, and keeping till April. Skin yellow, dotted with gray: flesh melting, with a perfumed and exquisite flavor. It ranks as a superior late keeping variety.

Chohwell.—An English variety, described by Mr. Thompson, in the *Journal* of the London Horticultural Society. The fruit is stated to be three inches long and about two in diameter: the form curved pyramidal: eye small, open: stem about half an inch in length: skin smooth, thin, yellowish green in the shade, and partly tinged and obscurely streaked with dull red next the sun, where it is also sprinkled with

pale dots. The flesh is yellowish white, melting, buttery, very sugary and rich, with a musky flavor, resembling the Seckel, or Henri Quatre; on the whole, it mostly resembles the latter, but the skin is thinner and smoother, and the eye is not so much plaited. The end of September and beginning of October is the season of maturity.

Doyenné Gris d'hiver nouveau.—Rather a long name, but it proved last season to be a very late-keeping pear, and of superior quality. The present season will afford a better opportunity to test it.

ART. VI. *On the Propagation of Stove and Greenhouse Exotics: in a Series of Letters.* By JAMES KENNEDY, Gardener to S. T. JONES, Staten Island, New York.

LETTER VIII. *Propagation by Suckers.*

THE exotics generally propagated by this mode are such as the Aloe, *Pitcairnia*, *Yucca*, *Tillandsiæ*, &c. &c., which, after they have done flowering, generally produce, in the summer months, suckers either from the stem or roots. These may be carefully taken off in the following spring, potted off into separate pots, proportioned to their size, and plunged up to their rims in a mild hotbed, where, if regularly supplied with air on fine days, and shaded when the sun is powerful, they will soon strike root.

LETTER IX. *Plant Divisions.*

This is the mode generally resorted to in increasing most deciduous herbaceous kinds of exotics, such as *Lobelia lutea* and *campanuloides*, *Sowèrbia*, *Juncæa*, &c. &c., as well as all shrubs which are prone to produce numerous suckers. The best time to divide the plants is when they receive their summer potting; then the divisions can be potted into separate pots, and allowed to mingle with their fellow-denizens in their proper departments, where exactly the same treatment will be suitable for all.

In conclusion, I would beg to remark, that by these loose hints, (for such indeed they are,) I have endeavored to illus-

trate the principal modes of increasing exotics, as far as my humble abilities would allow, with the way each mode may be performed with certain success. At the same time, I doubt not but many of the directions and observations will, by some, be considered trifling, unimportant and tedious; but to such objections I would answer, they are necessary to perfect success.

We are all well aware that, to accomplish any particular object, a certain amount of pains must be called into action; and I say, that, to aim at the successful propagation and cultivation of beautiful, delicate and expensive plants, it is impossible to bestow too much pains on their management. I would also beg to say, that, in preparing this for the Magazine, the writer lays little claim to originality. There is not, perhaps, a single process described which has not been long in practice in every nursery establishment where propagation appears in its real character; but if the amateur or young gardener gains any benefit from this, I am more than doubly paid for my trouble.

Staten Island, N. Y., September, 1847.

We need not again commend the letters of Mr. Kennedy: he has stated that, to many, the details may seem "trifling and unimportant." Perhaps they may to the experienced propagator; but to the amateur, or young professional man, these very "trifling" hints are the most valuable. We only hope Mr. Jones will continue to contribute of his fund of knowledge in our future numbers.—*Ed.*

MISCELLANEOUS INTELLIGENCE.

ART. I. *General Notices.*

The Cultivation of the Currant, and the Production of New Varieties.—We recently, in our notice of May's Victoria Currant, (p. 392,) offered some remarks in relation to the great improvement which we believe would result from the production of new seedlings. The editor of the *Gardener's Journal*, in an article which appeared about the same time, has taken the same view of the subject, and in words so similar, that we copy them to show we are not alone in our views of improvement in this neglected fruit. The rasp-

berry and the gooseberry he also thinks, and justly too, may be greatly improved. We quote the whole of his remarks, and commend them to the attention of every amateur:—

Last week, we took occasion to recommend to the attention of gardeners, and garden amateurs too, the subject of improving what are called the “small fruits.” We then referred to the strawberry, the raspberry, the gooseberry, and the currant, as examples, and offered some suggestions for the improvement of the former. We now proceed with such further remarks as suggest themselves, and, in following up our former plan, will inquire, what can be done for the raspberry? Perhaps less than in most other kinds of small fruit. It is not clear that the flavor of the raspberry could be at all improved. There is probably not much to be gained in the way of imparting to it variety of appearance. The best varieties at least possess the property of size, in a considerable degree; and, though this might be enlarged upon, yet it does not seem to strike one as a very necessary change; some of the present varieties, when well grown, may indeed be considered large. In what way, therefore, could our present race of raspberries be improved on?

There does seem to be one point at least on which an improvement might be wrought. Notwithstanding that the fruit is held in such universal estimation, the raspberry season is but of short duration. True, there is a double bearing variety, as it is called, which fruits later than the other kinds: this is valuable, so far, in itself: but we also take it as the earnest of something further. It is, in fact, just the thing to work with; and we have no doubt that a little well-directed energy would very shortly produce from it varieties which would materially prolong the raspberry season.

What can be done for the gooseberry? That the gooseberry cannot resist the power of improvement to which we are referring, there is ample evidence in the production of the prize varieties for which Lancashire is famous. But the Lancashire growers breed only for size; that quality they have indeed stamped upon the fruit in a very remarkable degree; but this of itself is not enough for the dessert, nor yet for the culinary department; quality, not less than quantity, is a necessary recommendation in the garden of the connoisseur. Gooseberry growers may, therefore, busy themselves to impart the flavor of the choicer kinds to the large show varieties that are now chiefly raised; and, in doing this, they will have effected an improvement worthy of the effort. But why not also prolong the gooseberry season? It is fully short enough. Some of the early kinds might, in time, be pushed a little nearer the vernal equinox than we now have them; and this early race would not be injured by increased size, and more concentrated flavor. Then, again, with the late varieties. Might not new forms, later than any we now possess, be obtained? And would not, in this case also, additional size constitute a further improvement? These results are only waiting the well-directed efforts of some zealous individual to meet a full realization.

What can be done for the currant? We see no reason why bunches of currants should not, for size, bear a closer comparison than now, with

bunches of grapes. The thing is by no means so ideal as it might at first seem to be. Were the berries double the size of those of the largest of our present varieties, and these, borne, as we now see them, occasionally, from a dozen to a dozen and a half in a bunch, we should have a very respectable approach, if not to the clusters of Eschol, at least to the more ordinary range of our cultivated grapes. Some of the varieties bear fruit which is less acid, and less woody-tasted, than that of others: these qualities would, of course, be required in the new and improved series. Then, again, currants are a fruit which it is often considered desirable to keep for some time—some months indeed—on the trees. It would be worth attempting to obtain varieties which would hang better than our present varieties do. On the subject of improving the present varieties of currants, we have recently met with some judicious remarks by Mr. Tomlinson, in the *Midland Florist*; and, as they bear directly on the subject before us, we will introduce them here:—

“I have for years been an extensive cultivator of currants, selling the produce in the large town in my immediate neighborhood, and I find that, though the red grape is a large and fleshy fruit, still it ripens unkindly, which is a great drawback to its more extended cultivation. The old long-bunched red is, with me, far preferable; but I see no earthly reason why this fruit might not be improved in a very great degree. Would it not be possible to raise a ‘*currant show*,’ on the principle of the Lancashire gooseberry shows? and if this could be carried out, and an inducement given to raise fresh varieties from seed, I make no doubt that we should speedily have currants double the present size, and much longer in the bunch; and I am sure that nothing would pay better than improved varieties of both black and white, as well as red ones. The plant comes early into bearing, and any improvement on the old sorts would speedily supersede them, as the black Naples is now displacing the black grape.

“I heard of several new sorts, which I purchased last autumn, and am now growing them, to test their respective qualities. Of course, I cannot, the first season, decide, as I should wish to have my plants well established. The sorts purchased are:—

“1. *The Gondouin Red*.—A continental variety, with peculiarly red wood and large foliage, very distinct in habit.

“2. *The Cherry Red*.—Also from the continent. This has extremely large foliage, and stout shoots.

“*May’s Victoria*.—This, I see, has been mentioned in several publications as a large and very prolific variety, and would, doubtless, be a fine sort to save seed from.

“*Haughton Castle (Red)*.—This was raised in the far north of England. Its character to me was *large and late*. It appears to be an erect grower, and has abundance of fruit, which is of good flavor, though, from the circumstance of the trees being planted only last autumn, not so large as when they become established.

“5. *Goliath*.—I have also received with this a first-rate character as a

good red currant; and, if any induction is to be made from its luxuriant mode of growth, I should fancy it would respond to its name.

"I have selected some of the largest berries on both Goliath and May's Victoria, the seeds of which I intend to sow; and should these prove large, I will again sow from the largest. By this means, in a series of years, I hope to arrive at the height of my ambition, namely, to produce currants as large as small marbles. Now I am confident there is nothing Utopian in all this; and I am certain that, if a few persevering individuals were to devote their attention to the improvement of the currant, it would be attained in less than ten years."

Once more we may state—and we repeat it, because it is a rock on which very many split—that experiments of this kind are the better for being conducted on a limited scale. One case of cross-breeding, carefully wrought out, on correct principles, is more pregnant with really useful and valuable results, than a thousand promiscuous ones, or a hundred carelessly prosecuted; while, of course, the labor and trouble attending the experiments becomes lessened a hundred or a thousand fold. Those, too, who have time and opportunity for more extensive operations, should take care to multiply carefully—instead of carelessly—conducted experiments.—(*Gard. and Farm. Journ.*, 1847, p. 115.)

Scarlet Pelargoniums.—I am inclined to predicate a longer rule for scarlet pelargoniums, because they are highly useful in our summer gardens, are easy of cultivation, and must always please by the splendor of their numerous flowers. As show flowers, they could scarcely be admitted, for they have too little variety, and besides, they produce less effect in pots on a small scale than in the open air. I have had an opportunity this season of comparing several good gardens, and in nothing has dissimilitude been more manifest than in the presence or absence of these beautiful flowers. A garden plentifully supplied with them has an unspeakable charm, which no other production I know of can confer; indeed, I never remember seeing too many of these, but on the contrary have generally observed that more might be introduced with advantage. The first advantage which may be mentioned is the foliage, which has such a fine exotic character, and looks so fresh at the autumnal season, when so many productions have a russet hue. Next comes the permanency of the flowers, the trusses of which are often so large that a supply, to fill up the places of those which have decayed, is furnished for a considerable time. Further, they will resist frosts much longer than other tender plants, surviving those early attacks which often destroy the dahlias. Lastly, they are as easy of propagation as any thing can be, both by seeds and cuttings; they may also be preserved through the winter with a very small portion of care.

Large specimens produce a fine effect, and they may be secured by taking up the tallest plants in the autumn, potting them, and turning them out in the spring. I have some plants of Smith's Superb, which are four years old, with stems of an established woody character, and above a yard high. When these are surrounded by others of a dwarf character, as General Tom Thumb, or other dwarf varieties, so as to hide the stems of their older

neighbors, the result is very pleasing. Whole beds may be filled with the dwarf kinds, and Mignonette growing among them will add the grace of an exquisite perfume to their own beauty. If a stock is kept in pots, they do admirably to fill up gaps, or to insert in places where earlier flowers have gone off. In fact, they are invaluable; and in addition to the remarks of last week, respecting propagation for next year, I would give a little advice as to the treatment of scarlet pelargoniums.

Having procured as many cuttings as possible, pot them thickly in pans or pots, and place them in a frame as directed before, care being taken to guard against damp, which is very fatal to their succulent stems. If the cuttings are allowed to dry over before the wounded part is inserted in the soil, the effect will be more sure. It has been found that these pelargoniums do well when potted as above, and kept in a room of a dwelling-house near the light. Indeed, as gardeners say, "they will grow like grass," and, in the winter, dryness is almost all they need to preserve them. In addition to the young plants made from cuttings, all the old roots may be taken up when the frosts come, and may be preserved by being cut down and potted; or they may be dried and hung up by the roots in an out-building, excluding frost and damp. Then again in the spring, the young shoots of those preserved in pots may be cut off and struck. There are numerous varieties of scarlet pelargoniums, some with variegated foliage, and as many as possible should be procured.—(*Gard. Chron.* 1847, p. 556.)

Pruning Fruit Trees.—I suspect that even the pruning of Paris will not do for this climate, and that, as regards pears and apples, at least bloom buds will not be obtained with certainty by the same means. I was in Paris two years ago, and took a lesson in pruning from M. Jamin. Nothing could be more perfectly trained than his pears and apples, and they were loaded with fruit. But I have either mistaken the precepts of my master, or his practice is not suitable for this damp climate. I find my memorandum of what he told me during a clinical lecture in his nursery. He is careful to thin out the branches (pears), and keeps thinning as the tree goes on, leaves the leader, and, in May or early in June, pinches off all wood shoots, and these so pinched he cuts back to one eighth of an inch in winter. These make bloom buds the next year, but those pinched off which are not strong make bloom buds the same year; some, of course, shoot after being pinched; these are again pinched, and, if no bloom buds are made, are cut off close, as before stated. The leader is shortened in winter. If this branch is well stored with bloom buds, he shortens to about six inches; if growing vigorously and no buds, he leaves it longer. He is against bending down the branches, and leaves no spurs; the branches about nine inches apart. After the leader attains about eight feet, he lets it grow on. In the main, he follows D'Albret's theory and practice of pruning fruit trees, 5th edit. I think you would do some service if you were to give us an abridgment of D'Albret's book as regards pruning. I attempted this, but find some difficulty in giving the proper equivalents for technical words, and so must leave it to some one more experienced in the art.—(*Id.* 1847, p. 557.)

Bottom Heat.—The following article, by Dr. Lindley, appeared in a late number of the *Gardeners' Chronicle*, and, although not quite so applicable to our climate as that of Great Britain, still the hints which it contains are of sufficient interest to claim the attention of all cultivators. Every gardener is aware of the importance of bottom heat in the growth of many kinds of plants; but the question is, how many other sorts are there to which it has not been applied, that may not be benefited by it?

One of the most important points to which modern gardeners have had their attention turned is that of bottom heat. It is, to a great extent, the cause of their eminent success in some branches of horticulture; and the time is coming when it will be looked upon as the foundation of all practice whatsoever. As matters now stand, the subject is only considered specially in a few cases, such as pine apples, melons and cucumbers, and in the operations of seed-sowing and cutting-striking. But it really concerns every plant that is known; more, perhaps, than even top-heat. Those for which it is so carefully studied are only extreme cases, but they point the way to general rules. We may be sure that, if one plant is so constituted that its roots require to lie in a medium of a particular temperature, all other plants will also have some temperature which suits their roots better than any other. This is acknowledged to be so with their branches and leaves; and it is certainly quite as true as respects their roots.

We might be certain that this opinion is well founded, even in the absence of direct proof, because we know that the aim of cultivation is to imitate, as exactly as possible in all respects, the conditions under which plants naturally grow. If in its natural state, where it arrives at the greatest perfection of which it is susceptible, a plant is continually exposed to a certain temperature of the earth, to another of the air, to a particular amount of light, of humidity, of atmospheric pressure, it cannot be doubted that the first business of the gardener is to imitate those peculiarities by all the means at his command; having done that, he may proceed to stall-feed his plants, till they resemble the bullocks at the Smithfield Club; but to cram them till he has secured their perfect health, is like overfeeding a savage debarred from his natural exercise and occupations.

A very interesting proof of the advantage of attending to this subject is to be found in our columns of last week, (p. 543.) It is there shown that, in Mr. Purdey's garden at Bayswater, a vinery has been filled with wood and fruit in little more than two years, by merely warming the border in which the vines grow. It is said that the latter made shoots thirty-seven feet long, strong, short-jointed, and well ripened in the first year. The grapes, which we have seen, are excellent, and were ripe in the beginning of August; so that they must have been forced in good time. We fully anticipate bunches from this house which shall equal the largest of Syria. Mr. Purdey has obtained this result by applying artificial heat to his vine-border, so as to insure its having a suitable temperature at the season of growth. In general, vines are treated as a man would be, if exposed to a steam bath with his feet in ice. The manner of heating that has been adopted at Bayswater has the fault of being too expensive. Let Polmaise be substituted for it,

and the whole cost will consist in forming a cavity in which the warm moist air shall circulate when desired.

The necessity of providing some means of warming the borders of vines to be forced (we will even say grown) in a climate like this, will be obvious when we compare the temperature of the earth in the south of France and Great Britain. The mean temperature of the earth near London, in the three first months of the year, may be taken as 38° ; that of Marseilles or Bourdeaux will be at least 65° . The mean temperature of the earth, near London, in July and August, is 62° ; that of Marseilles, about 78° , and of Bourdeaux, 77° . We will ask whether it is probable that such differences in the soil can be unimportant to the plants which grow in it. It would be a capital experiment to attempt to grow grapes in a house whose border should be in the inside of the house, and into which no other artificial source of heat should be admitted.

We have little idea in this part of the world of the temperature of the soil in some countries. Captain Newbold found the heat of the granitic soil in the vicinity of Bellary, at 2 P. M. in May, as high as 121° ; that of the black soil, $122^{\circ}.5$; that of the air, in the shade, being $95^{\circ}.5$. At midnight the temperature of the black soil was still as high as 86° , that of the air being 80° . That of a bare rock of granite, in the same locality, at 2 P. M., was $120^{\circ}.5$; of black basaltic rock, 122° ; that of the granite at midnight was $86^{\circ}.5$. Other examples are given in the "Theory of Horticulture."

But, in attempting to apply these principles to practice, gardeners are stopped at the threshold of their inquiry by the absence of evidence as to the temperature of soil in different countries. By a persevering search through books, they find, indeed, plenty of statements as to the temperature of the air, but that of the earth observers have almost invariably neglected. It is, therefore, interesting to inquire whether the temperature of the earth in which plants grow may not be inferred from that of the air which rests upon the surface. It has been shown, in the "Theory of Horticulture," (p. 96) that in October, near London, the mean temperature of the earth has been found 3° or 4° above that of the air, although in general the difference is not more than a degree or a degree and a half in favor of the earth. The permanent heat of the earth may therefore be regarded as being always higher than the mean of the air; but the amount of difference will be regulated by the temperature to which the earth is exposed, and by its own conducting qualities. It seems to us, however, that for gardening purposes the temperature of the earth may be taken as, on an average, 5° above the mean temperature of summer in warm countries; very often more, seldom less; so that if the mean temperature of Rome, in the hottest month, is 77° , it is probable that that of the soil, at the same time, will not be less than 82° . As we advance to the northward the difference diminishes, so that in London it is not more than 2° in favor of the earth.—(*Id.* 1847, p. 555.)

Preparation of large Shrubs for removal.—We hold the early part of autumn to be the best time in the whole year for the removal of evergreens, and the month of November to be the best on the whole for that of deciduous trees, provided the soil to receive them has been duly prepared. The

reasons are obvious, and those who well understand the propagation of the cuttings of these two broad classes can easily appreciate them. Autumn possesses a less capricious atmosphere than spring, and there is a much greater amount of ground heat, which is a great essential; the trees, moreover, will endure the necessary check much better at this period, and if the operation is performed under proper conditions, they will be, in a great degree, recovered by the period of germination. It may not be generally known that much may be done by way of anticipation in preparing large trees for removal; and the course we have to recommend is, to perform the check by instalments. We advise, then, that a trench be immediately excavated to the bottom of the ball, in the case of evergreens, at about six inches farther from the main stem than the ultimate size of the ball intended to be removed. Those who have leisure may perform the operation at twice, doing one half the circle now, and the other half a fortnight hence. This will be found to have checked all propensity to late and immature growths, and to have accelerated the rest period, thus giving the tree a longer period for recovery. It will, moreover, induce the formation of a new set of small fibres in the interior of the ball, which will act immediately the tree is removed. Deciduous trees or shrubs should not undergo the operation until the beginning of September, and they will be in a fit state for removal by the last week of October; whereas the evergreens may be planted in the early part of that month.—(*Id.* 1847, p. 559.)

Preparing for Winter.—The time has arrived when every gardener who wishes to manifest an acquaintance with his profession will be looking round the sphere of his operations to see what is to be done in reference to the approaching cold season. His head must be employed, and his hands actively engaged from the present time up to Christmas, when probably rain and frosts may keep him in-doors. Neglect now will be productive of fatal results, for gardens in the present day are as full of exotics as of indigenous productions, and various differences of treatment are demanded for the preservation of the stock until another year. Begin your perambulations, then, at once, and let nothing escape you, in the kitchen garden, the flower garden, the shrubbery, and the greenhouse. Let your observation be extended to the future, and carefully mark what is to be done.

In the kitchen garden you must decide at once what plots of ground you will leave fallow, to be thrown up in ridges during the winter, that the soil may be pulverized and ready for early crops; and what portions you will plant and sow at once. Seed beds of cauliflowers, cabbages and lettuces should be finished immediately. According to your probable wants must be your supply of young cabbages, to be cut young, and others to remain till the spring and summer. Spinach may still be sown; also some onions. Some cultivators recommend parsnip sowing at this season in preference to the spring; and it would be well to try the experiment, if you have not done so. Do not neglect to leave a piece of ground for autumn-planted potatoes, as the advantages of the plan are so well attested, provided proper precautions are taken as to soil, mode of planting, &c. All broccolis and winter-greens must be earthed up as a means of promoting growth, and guarding

against frost. The blanching of celery should proceed gradually, about two inches at a time, care being taken to prevent the soil falling into the heart of the plant, and, at the same time, not to crush and twist the tender tissues, as is often done by the rough grasp of the gardener. Finally, attend to cleanliness. Strawberry beds should be finished off now, and not left in a wild, rank state till the spring. Pea sticks, and all decayed haulm, and all weeds, should be removed not only that neatness may give its charm to the garden, but also to prevent the rapid production of damp and mouldiness, which are quickly generated among masses of decaying vegetation.

In the flower garden you should consider what departments you intend devoting to bulbs, and the beds must be prepared for that purpose as soon as possible. A difficulty is felt in this case, on account of the beds being often occupied till late in the season by autumnal flowers, which we are, of course, unwilling to sacrifice before the frost commits its ravages. Here there is no remedy but to pot hyacinths and other bulbs, which ought to be growing, and then to have them out as soon as the beds are ready. Attention should now be given to taking up plants which it is desirable to preserve, a few at a time, so as not to leave gaps, or spoil the general appearance of the garden. Young fuchsias, pelargoniums and verbenas, if taken up carefully and placed in a shaded frame after being potted, will flag scarcely at all. They will form pretty window plants till Christmas, and, what is more important, will constitute a stock to propagate from in the spring. Tender greenhouse plants, which have been out of doors during the summer, must be watched, lest an unexpected frost should injure them. They need not be taken in, but the amateur should have his eye upon them, and, when the night is brilliant and frosty, the most sensitive should be put under shelter.

The cuttings prepared for next year should now be looked over, and if they are rooted may be potted, either singly or three or four together, according to their habits. Every piping of pinks and carnations must be in the ground or pots at once, if you wish them to stand the winter. The secret of preserving these beautiful plants is, to secure plenty of roots.—(*Id.* 1847, p. 605.)

ART. II. *Domestic Notices.*

Richards's Beurré Pear.—Last spring, a gentleman of Hingham gave us a very favorable account of a new pear, which had originated in western New York, scions of which had been sent to him, as one of the very finest pears, fully equal to the Swan's Orange; at the same time, he kindly offered to give us buds, should his few scions succeed. Subsequently to this, we saw a notice of it in the *Horticulturist*, where it was called the Richards's Beurré, and there stated to be better than Swan's Orange, and we were very desirous to secure a few buds; but, just as we were sending after them, a couple of specimens of the fruit came under our notice, and, to our astonishment, they proved to be the old Summer Bon Chrétien, one of our oldest

fruits. These specimens were exhibited by Wm. R. Prince, at the annual exhibition of the Massachusetts Horticultural Society, on the 22d of September. This only shows how cautious editors of horticultural journals should be, in inserting every notice of a new seedling fruit which may come to hand, before they have any evidence of its being so.—*Ed.*

Fruit Convention in the West.—By the *Ohio Cultivator*, we learn that a convention of fruit cultivators was to be held in Columbus, Ohio, on the 29th and 30th of September, in the Hall of Representatives in the State House. The objects of the convention are stated to be the discussion of all subjects connected with fruit-growing, to bring to notice new seedlings of Western origin, to correct erroneous names, &c. A full report will be given of the convention, which we shall notice when it comes to hand.—*Ed.*

Rockingham Horticultural Society, Portsmouth, N. H.—We have been gratified to hear of the formation of a society for the advancement of horticulture in Portsmouth. There are many fine gardens in and around the town, and, from the taste which exists among the many amateurs, some of whom are our readers—and we trust all will be—we do not doubt that the association will do much towards disseminating a greater love for trees and plants. The first annual exhibition took place on the 15th of September.—*Ed.*

Horticultural Exhibitions.—The Essex County Natural History Society, Salem, the New Bedford Horticultural Society, and the Rhode Island Horticultural Society, held their annual exhibitions on the 29th and 30th of September, and October 1. We only regret that our engagements would not allow us to be present at either of them. Our thanks are due to the officers of each of the societies for their attention in sending us tickets.—*Ed.*

ART. III. *Massachusetts Horticultural Society.*

Saturday, September 4, 1847.—Exhibited.—FLOWERS: From the President of the Society, a variety of fine phloxes, viz.: *Pötsii*, *Blanc de Neuilly*, *Princesse Marianne*, *Bourboniensis*, *speciosa*, *Nymphæa álba*, *vinca-flora*, *rosea alba*, *Cromwell*, *Standard of Perfection*, *Richardson's dark red*, *Auguste*, *Candidissima nova*, *rosea superba*, *speciosissima*, &c.; also *Marchioness of Cornwallis*, *Princesse of Radzville*, *Captivation*, *La Folka*, *Arethusa*, *Cheltenham Queen dahlias*, and others; *Japan lilies* grown in the open ground, *roses* and other cut flowers. From *Joseph Breck & Co.*, *dahlias*, *phloxes*, *verbenas*, *roses*, *delphinium*, *petunias*, *Argemone mexicana*, *antirrhinums* in great variety, *lavateras* and other cut flowers. From *P. Barnes*, a very handsome seedling *verbena*, red, with a white eye, good shaped flower, and well formed cluster; also *dahlias* in variety, and other flowers.

From *Messrs. Hovey & Co.*, several fine plants, viz.: *Achimenes grandiflora*, *Achimenes pedunculata*, *Achimenes rosea*, *Achimenes longiflora*, *Maid of Orleans Jasmine*, double and fragrant, *Schubertia graveolens*, *Verónica speciosa*; also six hand bouquets, one round table bouquet, and a

variety of dahlias. Bouquets, dahlias, and cut flowers were exhibited by T. Needham, J. Robinson, J. L. L. F. Warren, A. Bowditch, J. Nugent, John Parker, J. Hovey, L. Davenport, S. R. Johnson, Messrs. Winships, W. Kenrick, John Richardson, and W. B. Richards.

The award of premiums was as follows :—

PLANTS IN POTS.—For the best six plants, to Messrs. Hovey & Co., \$2.

BOUQUETS.—For the best six hand bouquets, to A. Bowditch, \$2.

For the second best, to J. Nugent, \$1.

For the best pair of mantel bouquets, to J. L. L. F. Warren, \$2.

For the second best, to J. Nugent, \$1.

GRATUITY.—To Miss Russell, for a basket of flowers, \$1.

FRUIT : From the Pomological Garden, Rostiezer, and No. 1454 Van Mons pears ; English Wheat plums ; Lyscom, Yellow Summer, Salinas, Longville's Kernel, Walpole, Garden Royal, Corse's Sweeting apples : The Rostiezer pear proves to be one of the most delicious early pears, equal to the Seckel ; the Garden Royal apple is also a fine variety. From Cheever Newhall, Julienne and Beurré d'Amalis pears, and Royal Muscadine, St. Peter's, and White Frontignan grapes. From J. F. Allen, Aleppo, White and Grizzly Frontignan, Esperione, Wilmot's No. 16, Zinfindal, Black Hamburg, and White and Rose Chasselas grapes ; figs ; Crawford's Early, Bellegarde, Royal, (?) Snow, La Fayette, and Gros Mignonne peaches ; (?) Peterborough, Roman, and Newington (?) nectarines ; Vallee Franche, Dearborn's Seedling, Passans du Portugal, Summer Franc Real, and Tyson pears,—the latter beautiful specimens. Handsome specimens of the Tyson pear were also shown by J. H. Welch, Dorchester. From S. R. Johnson, superb specimens of the Washington and Imperial Gage plums. From John Hovey, Yellow Crab apples, and White Gage plums. From Ous Johnson, Washington, Beurré Romain, Julienne, Dearborn's Seedling, and Williams's Bon Chrétien pears.

From Messrs. Hovey & Co., Black Hamburg grapes, Julienne pears, and Washington, Cooper's Large Red, Green Gage, and Scarlet Gage (?) plums. From Samuel Walker, Belle de Bruxelles, Hampden's Bergamot, Chenille, Andrews, St. Ghislain, fine, Belle Lucrative, Williams's Bon Chrétien, Summer Franc Real, and Beurré d'Amalis pears ; Washington, Diamond, very large, and Green Gage plums ; Seedling peaches, and Morello cherries. From J. L. L. F. Warren, Maiden's Blush, Porter, and Grand Sachem apples ; Julienne, and Dearborn's Seedling pears ; Yellow Siberian Crab apples ; and Duane's Purple and Bingham plums, both fine. From S. Downer Jr., Early Ann peaches. From Azell Bowditch, Black Hamburg, and Royal Muscadine grapes. From Isaac Fay, Bingham, Duane's Purple, Breevort's Purple Gage, and Washington plums. From E. Brown, Williams's Bon Chrétien pears. From D. Locke, figs. From Josiah Lovett, Yellow Gage plums, and Benoni apples, fine. From James Patten, Egg, and White Gage plums. From William Quant, Murray, and Elrue nectarines, beautiful.

From Messrs. Ellwanger & Barry, Rochester, N. Y., fine specimens of the Early Joe apple. From W. Clapp, Summer Queen apples, one of the best of the season. From Peter Fay, Southboro', Greening Fay apples,

(a seedling,) large, handsome, and good. From Galen Merriam, Cool-edge's Favorite, and Crawford's Early peaches; and Williams's Bon Chrétien pears. From John S. Sleeper, Prince's Yellow Gage, Cooper's Large Red, and Duane's Purple plums, fine. From E. E. Bradshaw, Washington and Bradshaw plums, large and beautiful. From Mrs. Geo. Hallett, two watermelons, weighing 30 and 32 pounds each. From Parker Barnes, Beurré d'Amalis pears, and Green Gage plums. From Thomas Needham, Chasselas de Fontainebleau, Black Hamburg, fine, Frankindale, and White Frontignan grapes. From J. W. Sever, Green Gage and White Gage plums, and Dearborn's Seedling and Summer Rose pears. From Anson Dexter, Williams's Bon Chrétien and Summer Franc Real pears. From E. M. Richards, Benoni, fine, Spice Sweeting, and Summer Pearmain apples, fine; Dearborn's Seedling pears. From F. W. Macondray, peaches for a name; Summer Franc Real, (?) pears; White Gage, and Duane's Purple (?) plums. From A. D. Williams, Harrison's Fall Baking, Orange, and Beurré d'Amalis pears; Superb Sweet, and Williams apples; Field Marshal, Yellow Gage, and Orleans plums. From A. D. W. Williams, Black Hamburg, and Royal Muscadine grapes. From Josiah Richardson, Native grapes. From Henry Vandine, Huling's Superb, Pond's Seedling, (?) Italian Damask, Early Black, Sweet Seedling, Wilmot's Early Orleans, Imperial Gage, and Cooper's Large Red plums, and Green Sugar of Hoyerwerda pears.

The Committee awarded the following PRIZES.—

APPLES.—For the best Summer apple, to E. M. Richards, for the Benoni, the first premium of \$6

For the next best, to John Hovey, for the Early Harvest, the second premium of \$4.

SPECIAL PREMIUM FOR APPLES.—To E. M. Richards, for the Benoni, \$5.

To John Hovey, for the Early Harvest, \$5.

Being for the two best varieties and specimens of Summer apples exhibited previous to September 1st.

September 11th.—An adjourned meeting of the Society was held to-day—the President in the chair.

Letters were read from the Pennsylvania Horticultural Society, American Agricultural Association, New Haven Horticultural Society, and Long Island Horticultural Society, inviting the Massachusetts Horticultural Society to send delegates to their respective exhibitions.

Voted, That a delegation consisting of two, to be chosen by the chair, be appointed to attend the Exhibition of the New Haven Horticultural Society, and Messrs. F. W. Macondray and S. Downer, Jr., were appointed that Committee, with power to fill vacancies.

The Vice Presidents of the Society were appointed a Committee to wait upon Delegates from other Societies.

A Committee of three was chosen by the chair, to nominate a list of officers of the Society for the coming year, viz., Messrs. E. Wight, F. W. Macondray, and Otis Johnson.

Adjourned for one week.

Exhibited.—**FLOWERS**: From the President of the Society, one hundred and fifty dahlias; among them were Madame Dresser, Sir Edward Antrobus, Dawn of Day, Marchioness of Cornwallis, Mimosa, Golden Rule, Arethusia, Princesse Radziville, Cleopatra, Beauty of England, Fulwood Scarlet, Captivation, &c. From P. Barnes, fifty dahlias; among the new varieties Princesse Radziville, Essex Goldfinch, La Polka, Marquis of Aylesbury, and other fine varieties; Essex Primrose, Isis, Smith's Lady Sale, Great Western, King of the West, Cheltenham Queen, &c. From Joseph Breck & Co., fifty dahlias, German asters, *Euphōbia* variegata, and a great variety of other cut flowers.

From Messrs. Hovey & Co., a great number of splendid German asters in ten or twelve varieties; also six hand bouquets, and two mantel bouquets. From John L. Gardiner, by J. Thomas, seven pot plants, viz.: one *Justicia coccinea*, two of *J. carnea*, *Manettia glabra*, *Erica multiflora*, *Erica densiflora*, Fuchsia; also a collection of German asters, and two mantel bouquets. From G. C. Crowninshield, by John Quant, fine German asters. From T. H. Perkins, by William Quant, two mantel bouquets. From J. L. L. F. Warren, seven hand and two mantel bouquets; a plant of *Anémone japonica*, a new hardy variety, not before exhibited at the Society's rooms; German asters, dahlias, gladiolus, and other cut flowers. Bouquets, dahlias and cut flowers, from J. Robinson, S. R. Johnson, T. Needham, James Nugent, W. B. Richards, A. Bowditch, and A. Reed.

Award of Premiums:—

GERMAN ASTERS.—For the best display of flowers, to Hovey & Co., \$4.

For the second best, to John Quant, \$3.

For the third best, to J. Thomas, \$2.

PLANTS IN POTS.—For the best six plants, to J. Thomas, \$2.

BOUQUETS.—For the best hand bouquets, to J. Nugent, \$2.

For the second best, to Hovey & Co., \$1.

For the best pair of mantel bouquets, to W. Quant, \$2.

For the second best to Hovey & Co., \$1.

FRUIT: From R. Manning, Krzenetzen, Van Mons, No. 1434, and Hampden's Bergamot pears. From J. F. Allen, Green Gage plums; Black Hamburgh, Aleppo, Rose, and White Chasselas grapes; also a small cluster of the August Muscat, a new early Muscat grape, which will probably prove a valuable kind; Elizabeth of Van Mons, Passans du Portugal, Cabot, Julienne, and Hannas pears; Crawford and Bellegarde peaches; Elruge nectarines; Brunswick figs. From James Nugent, Williams's Bon Chrétien pears; Black Hamburgh and Chasselas grapes. From W. R. Austin, Summer Francreal, Williams's Bon Chrétien pears; Cooledge's Favorite, and Bellegarde peaches. From S. R. Johnson, fine Washington plums. From Messrs Hovey & Co., fine Wilmot's Black Hamburgh, Black Hamburgh, and Chasselas grapes. From Oris Johnson, Belle et Bonne, Aston Town, and Dearborn's Seedling pears, the latter very fine; also Summer Pearmain apples. From George Wilson, Green Gage, Goliah, Cooper's Large, and Kirke's plums, the latter a superior variety, and quite rare. From Col. T. H. Perkins, by William Quant, Persian Green-fleshed mel-

ons, fine; Elruge and Golden nectarines, very fine; Vanguard, Noblesse, and late Heath peaches, beautiful specimens.

From E. E. Bradshaw, Washington, Imperial Gage, and Bradshaw plums, beautiful specimens; also seedling peaches, handsome, and of fair quality. From F. W. Macondry, Duane's Purple, Prune Plum, and Green Gage plums; Black Hamburg grapes. From J. Stickney, Early Crawford peaches. From A. D. Williams, Andrews, Williams's Bon Chrétien, Dearborn's Seedling, Julianne, and Beurré d'Amalis pears; Golden Pippin and Ram's Horn apples. From Josiah Lovett 2d, Diamond plums. From James H. Watts, Rochester, N. Y., Kensington rareripe (!) peaches. From Moses B. Seward, Rochester, N. Y., Hawley apple, a new, large, and exceedingly fine autumn apple. From O. H. Mathers, by T. Needham, Chasselas, Frankindale, (?) White Frontignan, Black Hamburg, and Chasselas Musque grapes, fine. From J. L. L. F. Warren, Belle et Bonne, Napoleon, Dearborn's Seedling, and Julianne pears; Green and White Gage, Duane's Purple, Diamond, and other plums; Grand Sachem, and Porter apples. From Elisha Park, Morello cherries. From Eben Wight, Julianne, Valle Franche, Williams's Bon Chrétien pears; Orange Sweeting and Pumpkin Sweeting (!) apples. From Lewis Slack, Westboro', Garden Royal apple, a very fine fruit. From A. Dexter, Williams's Bon Chrétien and other pears. From H. A. Dyer, Brooklyn, Conn., Mexico, Sugar Sweeting, and Golden Orange apples. From Galen Merriam, Jacques, Cooledge's Favorite, and Hastings's peaches. From Henry Rice, the Bruce apple, a native fruit, handsome, and of fine quality. From S. Downer, Jr., Groc Roi Louis pears. From A. Bowditch, Black Hamburg and Chasselas grapes. From J. J. Stimpson, Providence, Julianne pears.

From the President of the Society, Knight's Seedling pears, a Rhode Island variety, of superior quality, large and handsome.

VEGETABLES.—From Azell Bowditch, Dwarf Russian beans, and Lima beans. From A. D. Williams, Canada and Marrow squash, Sweet corn. From P. Barnes, Couvé Tronchuda. From S. Walker, Snake cucumber.

NINETEENTH ANNUAL EXHIBITION.

The Annual Exhibition was held at the Society's Hall, in School Street, on Wednesday, Thursday, and Friday, September 22d, 23d, and 24th.

In consequence of the backward season, the late period at which the exhibition took place was highly favorable to exhibitors, whose specimens of fruits and flowers, especially the former, had but just attained a good growth. A wet and cool summer had brought forward the dahlias, and they were seen in much greater profusion than at either of the last two annual exhibitions. Of other flowers, the show was rather meagre; the roses were quite destroyed by the deluge of rain of the week preceding the show, and flowers of most kinds were so much damaged as to render it difficult to make a good selection. The bouquets were not numerous, nor, with few exceptions, very remarkable for beauty, and the display of plants in pots was of the most meagre description. Indeed, we hope, for the credit of the Soci-

ety, that, another year, something will be done to restore the interest in the Floral department of the exhibition. The prevailing mania for fruit-showing will be highly injurious, if it is to be allowed to usurp the room, as well as the means, of the Society. It is true, a larger Hall will be required to show plants to advantage, but it is evident that there is a decreasing interest in their cultivation for show, from the want of proper encouragement by more liberal premiums. The great feature of the last two exhibitions, Floral designs, has been done away with to a great degree, and, we doubt not, will be entirely so another year. The small designs, so much more appropriate, were generally neat and pretty, but there was a scarcity of fine bouquets, although the prizes for them were very liberal. As a whole, the exhibition of plants and flowers was inferior to those of previous years.

But, if there was a falling off in the Floral display, it was not so in Fruit exhibition. A richer show, we venture to say, was never made, particularly of pears and grapes; and the great extent and perfection to which their cultivation has attained around Boston could only be appreciated by an inspection of the exhibition. There were but few peaches, and, with one exception, rather poor. The apples were much finer than usual, and we are glad to note greater interest in this most valuable fruit. Among the show of vegetables, the potato was well represented.

Some of the most attractive objects in the ornamental department were the following:—A Grecian vase by Mr. Quant, of good proportion, exceedingly neat and well executed. A monumental design by Mr. Thomas, well done, but injured in effect by too many marygolds. The design of Mr. Walker, which occupied the wall at the head of the Hall, with the following inscription, “Welcome friends again,” had a very pretty effect. The two immense bouquets by Messrs. Hovey & Co., which occupied the marble vase on each fruit table, greatly ornamented the central portion of the Hall. At the opposite end of the room from the entrance, the beautiful Marble Statues, Spring, Summer, Autumn, and Winter, were placed, with Flora crowning all; and the arrangement of the plants among them formed a pleasing *coup d’œil*. Over the entrance were placed the various grass bouquets, dry leaf trees, &c., some of which were extremely beautiful, and the walls were festooned with the choice wreathing of Mr. S. A. Walker and others.

The Fruit was abundant, and generally excellent,—some of the specimens surpassingly fine. Among the pears, Mr. Manning, as usual, led off with *two hundred and fifty-five* sorts, some of which were large and fine, and, among the number, fine specimens of the Coter, 135 and 1482 Van Mons, Caen du France, Las Canas, Duchesse d’Orleans, Paradise d’Automne, &c. Next came the President, with *one hundred and fifty-nine* kinds, many of them entirely new. Messrs. Hovey & Co., with *seventy* varieties, more than half of them shown for the first time. Messrs. Walker, Capt. Lovett, Mr. Johnson, S. Downer, Jr., Mr. Ives, and others, also had large collections. The Williams’s Bon Chrétien of Mr. Pond were very fine, as were also Mr. Vandine’s Flemish Beauty, both of which took prizes. The Belle Lucrative of the President were extremely large, and some Fred. of Wurtemberg,

by Messrs. Hovey, the most magnificent of pears. Capt. Macondry's Washingtons were perfectly beautiful. But by far the finest display, showing, certainly, the highest cultivation, was twelve dishes of pears by Mr. Crooker, containing Van Mons Leon le Clerc, of remarkable size and beauty. Many other collections were deserving of notice, but our room will not admit us to enumerate all we could wish.

The grapes, however, cannot be passed by. Every year, the culture of this fruit has greatly improved, and the truly magnificent specimens exhibited leave little to be desired in the way of better. Mr. Needham was the successful competitor for the prize; and his Cannon Hall Muscats, though not near ripe, were truly noble berries and bunches. Mr. Allen, as usual, had the most extensive collection, all very good, and the Hamburgs well colored, but the berries and bunches small. Messrs. Hovey & Co. had the Wilmot's Black Hamburg, jet black, with very large berries, and also some superb Grizzly Frontignans and Hamburgs. Mr. Donald, Mr. Young, and Mr. Towne had also finely grown grapes, with berries of good size and well colored, though not quite black.

The vegetables were few and excellent, the most attractive exhibition being thirty-five varieties of potatoes, fifteen of them seedlings, by Mr. S. W. Cole. The Committee, in commendation of Mr. Cole's zeal to bring together this valuable collection, awarded him, very justly, a gratuity of ten dollars. We shall probably give some account of them at a future time.

PLANTS.—From the President of the Society, several camellias, acacias, *Achimenes longiflora*, and other plants. From Messrs. Hovey & Co., six large plants of *Achimenes rosea*, *Fuchsia fulgens*, *Acantha* and *Nymph*, *Gloxinia Cartoni*, *Gesnera zebrina*, &c. From Mrs. Pratt, by A. McLennan, twelve fine coxcombs of large size, *Hedychium Gardnerianum*, and other plants. From J. L. L. F. Warren, a collection of Cacti, containing nineteen plants, embracing, among others, *Cereus crucigera*, and *Wildiana*, *Echinocactus scopa*, and *mamulosus*, and eleven species and varieties of *Mammillaria*; also two plants of *Achimenes grandiflora*.

DESIGNS.—From W. Quant, a moss vase and pedestal, eight feet high, of very chaste construction, covered with moss, ornamented with amaranths, and filled with flowers. From J. Thomas, a monumental design, about eight feet high, rather heavy in form, but neatly wrought in moss, and profusely ornamented with bouquets of flowers. From Messrs. Hovey & Co., a large flat design, four feet by six, representing mosaic work, inlaid with asters, amaranths, rudbeckias, and zinnias. From T. Needham, a grotto design, highly finished with moss. From Jas. McNeil, gardener to J. D. W. Williams, a chaste and very pretty design, a Floral Bower with a basin in the centre, containing gold fish, and a fountain at play. From S. A. Walker, a motto, about fourteen feet long, "*Welcome, friends, again,*"—the groundwork moss, and the letters in amaranths. This was suspended by wreaths of amaranths and other flowers, held in the beak of an eagle, with a star attached. From Master Rosamond Walker, a duck, feathered with amaranths and immortal flowers. From Isaac Rich, a very neat arabesque design of mosaic work wrought with amaranths and other flowers.

BOUQUETS OF VARIOUS KINDS, BASKETS OF FLOWERS, WREATHS, &c.—From Messrs. Hovey & Co., two very large round bouquets for the Society's Marble vases, about four feet high and two wide, composed principally of amaranths, but containing choice roses and other rare flowers; also two smaller pyramidal bouquets, and two mantel bouquets. From Jas. Nugent, a pair of large pyramidal bouquets for the Bradlee vases, and six hand bouquets. From Messrs. Winships, a pair of large pyramidal bouquets, and one pair of parlor bouquets. From J. L. L. F. Warren, two large pyramidal bouquets, one grass bouquet, and two hand bouquets. From John Quant, a pair of pyramidal bouquets, composed of indigenous flowers. From Henry Reed, gardener to N. Stetson, Esq., a beautiful circular bouquet, with flat surface of choice dahlias. From O. N. Towne, a flat bouquet of dahlias and other flowers. From Miss R. Bowker, a splendid bouquet of dried grasses, and a tree composed of dried autumnal leaves of various shades, arranged with much taste. From Mrs. D. Sparrell, a tree made from very handsome specimens of dried grasses. Bouquets were also contributed from R. West, Salem, Jona. Warren, Jr., E. M. Richards, John Hovey, A. Bowditch, and others.

From Miss Russell, one large and one small basket of flowers, arranged in her usual neat and chaste style; also a pair of stars handsomely wrought with amaranths. From J. A. Kenrick, made by his daughter, a pretty basket of flowers, and a handsome wreath.

From S. A. Walker, two beautiful wreaths, each thirty-five feet long, composed of evergreen, amaranths, immortal, and other showy flowers. From A. Bowditch, a wreath thirty-five yards in length.

DAHLIAS, ASTERS, AND OTHER CUT FLOWERS.—From the President of the Society, a great number of fine dahlias, filling one of the circular stands, and containing some very fine blooms. Dahlias were also shown by P. Barnes, S. R. Johnson, John Parker, Jos. Breck & Co., Hovey & Co., J. L. L. F. Warren, A. Bowditch, R. Ames, Jas. Nugent, O. H. Mather, John Hovey, W. Meller, C. A. Hewens, and others. A fine lot of German asters from Hovey & Co. Handsome coxcombs from H. Hazletine. Fine roses and dahlias from L. Davenport. Beautiful pansies from Hovey & Co. Cut flowers of various sorts were also sent by O. H. Mather, Jas. Nugent, Breck & Co., and others. *Lilium lancifolium album*, grown in the open air, from the President. From F. R. Bigelow, two flowers of *Cereus triangularis*.

FRUIT.—From the President of the Society, 159 varieties of pears, viz.:—Andrews, Ananas of the French, Angleterre Noisette, Angelique de Rome, A. de Bourdeaux, Ambrette, Autumn Superb, Belle et Bonne de Hee, B. et Bonne, B. Angevine, B. d'Angers, B. des Trois, B. Excellent, B. de Grande Montaigne, Beurré Bruneau, B. de Nerckman, B. Curtet, B. d'Elberg, B. de Louvain, B. Montefontaine, B. Incomparable, B. d'Arenberg, B. d'Amalis, B. d'Angleterre, B. Rance, B. Easter, B. Coloma, B. d'Anjou, B. Cutter, B. Bronze from France, B. Bronze, L. H. S., B. Diel, B. Golden of Bilbao, B. de Capiaumont, B. Bosc, B. Bealieu, B. de Rhine, B. Kenrick, B. Brown, B. Beaureal, B. Audisson, Buffam,

Brougham, Belmont, Williams's Bon Chrétien, Bezi de la Motte, Bleeker's Meadow, Bezi Vaet, B. des Veterans, Bergamotte, Gansel's, B. Parthenay, B. Easter, B. de Brunon, B. Suisse, B. Seedling, B., Dr. Ives's, Catillac, Chaumontel Belge, C. English, Colmar d'Aremberg, C. d'Ete, C. du Lot, Comte de Lamy, Comtesse de Lunay, Columbia, Comprette, Cushing, Dunmore, Dearborn's Seedling, Dix, Duchesse d'Angouleme, D. de Mars, D. d'Orleans, Doyenné gris, D. gris d'hiver nouveau, D. doré, D. crotte, D. panachée, D. musqué, De Tonneau, De Louvain, Delices Charles, Dumortier, Deschamps, Epine d'hiver, E. d'Ete, Eyewood, Fulton, Fontarabie, Belle Lucrative, Fortunée, Figue de Naples, Famenga, Fondante de Lille, Ferdinand de Meester, Gil-o-gil, Glout Morceau, Gendesheim, Girardin, Heathcot, Henriette, Gov. Edwards', Jalousie de Fontenay Vendée, Julienne, King Edward's, Knight's Seedling, Lawrence, Liberale, Louise Bonne de Jersey, Lewis, Leon le Clerc, Marie Louise, Miel de Waterloo, Napoleon, Doyenné Boussock, Manning's, Ditto from France, Naigly, Passe Colmar, Petre, Philippe of France, Poire de Louvain, P. de Conda, P. d'Amour, Ridelle, Roi de Wurtemberg, Rousselet de Rheims, Seckel, St. Germain de Tillion, St. G., Prince's, St. G., Striped, St. G., Uvedale's, Siennelle, Sucre Verte, Swan's Egg, Sage-ret, St. André, St. Laurens, St. Michael Archangel, Sarazin, St. Denis, Tarquin, Triumph de Jodoigne, Summer Thorn, Sanspapielle, Surpasse Virgoulouse, Urbaniste, Unknown, six varieties, Le Curé, Van Mons Leon le Clerc, Verte Longue, V. L. d'Automne, V. L. Panachée, Voix aux Prêtres, Vicompte de Spoelberch, Van Mons, No. 65, Wilkinson, Winter Nelis, Wilbur.

From the Pomological Garden of R. Manning, 255 varieties of pears, embracing many new sorts, viz. :—Aston Town, Angers, (?) Althorpe Crasane, Angelique de Rome, Ananas d'Ete, Alpha, Ambrosia, Alexander of Russia, Andrews, Bergamotte d'Automne, B. Libboten, B. Parthenay, B. Fortuné, B. Sylvange, B. Gansell's, B. Cadette, B. Hampden's, B. Welbeck, Benrre Spence, B. Whitzumb, B. Easter, B. Preble, B. Kenrick, B. l'elbecq, B. Brown, B. Verte, B. d'Angleterre, B. Beaumont, B. d'Aremberg, B. Adam, B. Bosc, B. gris d'hiver nouveau, B. Diel, B. Coloma, B. Van Mons, B. Golden of Bilboa, B. Van Marum, B. de Capiaumont, B. d'Amalis, Beauty of Winter, Bezi Montigny, B. de la Motte, Buffum, Black Pear of Worcester, Bon Chrétien Turkish, B. de Bruxelles, B. Tucker's, B. Fondante, B. Williams's, Belle Lucrative, B. et Bonne, Bleeker's Meadow, Belmont, Bois Napoleon, Bodin, Boucquia, Brugman's birne, Bishop's Thumb, Bonne Louise, Copæa, Cross, Colmar Epine, Catillac, Calebasse Monstreuse, Chapman's, Columbs d'hiver, Charles de Boulogne, Capsheap, Croft Castle, Citron of Bohemia, Chaptal, Columbia, Colmar Niel, Caen du France, Comte de Lamy, Chaumontelle, Cuvelier, Clinton, Charles of Austria, Commodore, Coter, Crassane, Clara, Coloma, Caroline, Colmar d'Automne, Calebasse, Cushing, Cabot, Chelmsford, Doyenné Boussock, D. White, D. Crotte, D. Mons, D. d'hiver, D. Bosc, D. Louis, D. d'Alencon, Dingler, Duchesse d'Angouleme, D. d'Orleans, D. de Mars, Dix, Dundas, Double Amande, Dunmore, Dearborn, Endicott,

Emerald, Eyewood, *Enfant Prodige*, *Echasserie*, *Fulton*, *Figue Extra*, *Foster's St. Michael*, *Figue de Naples*, *Frederick of Wurtemberg*, *Flemish Sabine*, *F. Beauty*, *Fondante Van Mons*, *Fantasie V. Mons*, *Franc Real d'hiver*; *Glout Morceau*, *Girardin*, *Green Pear of Yair*, *Gendesheim*, *Gil-o-gil*, *Henry IV.*, *Huguenot*, *Hunt's Connecticut*, *Hericart*, *Henkel*, *Hathorne's Seedling*, *Hacon's Incomparable*, *Heathcot*, *Henrietta*, *Harvard*, *Hadley*, *Horticulture*, *Jaminiette d'hiver*, *Jalousie*, *Jubin*, *Knight's Seedling*, *King Edward's*, *Juvardal*, *Jaminiette*, *Jalousie de Fontenay Vendee*, *Johannot*, *Julienne*, *Lincoln*, *Las Canas*, *Long Green of Europe*, *Long Green*, (of *Coxe*,) *Locke*, *Louise Bonne de Jersey*, *Le Curé*, *Lewis*, *Leon le Clerc*, *Leon le Clerc Van Mons*, *Lederbirne*, *Louis of Boulogne*, *Late Deschamps*, *Louis Philippe*, *Marie Louise double Emploi*, *Manning's*, *Meuris d'hiver*, *Marie Louise*, *M. L. nova*, *Marulis*, *Messire Jean*, *Michaux*, *Muscadine*, *Marie Louise*, (*Pitts*,) *Napoleon*, *Navez*, *Plombgastel*, *Petre*, *Pennsylvania*, *Pome Poire*, *Paradise d'Automne*, *Pitfour*, *Princess of Orange*, *Passans du Portugal*, *Pope's Russet*, *Parmentier*, *Quetelet*, *Queen of the Low Countries*, *Passe Colmar*, *Reine des Poires*, *Raymond*, *Ronville*, *Rousselet de Meester*, *Rameaux*, *Rousselet de Rheims*, *Royale d'hiver*, *St. Germain Uvedale's*, *St. Germain Prince's*, *St. Germain Brande's*, *St. Germain d'Ete*, *Seckel*, *St. Ghislain*, *Stevens's Genesee*, *Superfondante*, *Shobden Court*, *Surpasse Virgouleuse*, *Surreine*, *Styrian*, *Sovereign de Printemps*, *Shakespeare*, *Siculle*, *Sullivan*, *Summer Thorn*, *Schoeling Merry*, *St. André*, *Thompson's*, *Urbaniste*, *Van Assene*, *Vacat*, *Whitfield*, *Wilbur*, *Winter Nelis*, *Winter Crassane*, *Wilkinson*, *Washington*, two seedlings, and Nos. 104, 108, 135, 177, 365, 658, 858, 879, 969, 1036, 1074, 1100, 1155, 1242, 1258, 1295, 1336, 1344, 1406, 1454, 1482, 1485, 1535, 1590, and 1602 *Van Mons*; *Pyrus Bolwilleria*, a distinct species; 75 varieties of apples, 5 of peaches, and 5 of plums; but we have no room for the names.

From Messrs. Hovey & Co., 70 varieties of pears, viz.:—*Arboricrite*, (!) *Beurré d'Aremberg*, *B. de Moire*, *B. Diel*, (!) *B. Crapaud*, *B. de Capiaumont*, *B. Brown*, *B. Rance*, *B. Easter*, *B. Dumortier*, *B. de Beaumont*, *B. Curtet*, *Belle Lucrative*, *B. d'Esquermes*, *B. Excellente*, *B. et Bonne*, (*de Hee*,) *B. Heloise*, *B. Apres Noel*, *Bergamotte de Parthenay*, *Belmont*, *Bezi de Montigny*, *Colmar d'Aremberg*, *C. du Lot*, *C. Prieule*, *Captif St. Helene*, *Doyenné Musque*, *D. Boussock*, *D. Grey*, *Duquesne d'Ete*, (*or Julienne*,) *Duchesse de Berri*, *D. d'Angouleme*, *Delices de Jodoigne*, *Dingler*, *Dunmore*, *Excellentissima*, *Esperine*, *Epine de Toulouse*, *Figue de Naples*, *Ferdinand de Meester*, *Fondante Rouge*, *Forme de Delices*, *Frederic de Wurtemberg*, *Inominee Patrie*, *Louise Bonne de Jersey*, *L. B. d'Angers*, *Leon le Clerc*, (*old*,) *Ditto (Van Mons)*, *Melon de Kops*, *Madotte*, *Napoleon*, *Passe Colmar*, *Passans du Portugal*, *Poire Gerardin*, *P. Sabine*, *P. Duvernay*, *Soldat Labourer*, (!) *Saint Dorothee*, *Seckel*, *Seedling Maria*, *Tarquin de Pyrenees*, *Tardive de Mons*, *Van Mons Sargeret*, *Van Mons Late*, *Vicomte de Spoelberch*, *Williams's Bon Chrétien*,—and 4 new varieties from France; 12 varieties of grapes, as follows:—*Black Hamburgh*, *B. H. Wilmot's*, *Black Prince*, *Esperione*, *Bourdela's*, *St. Peter's*, *White Frontignan*, *Grizzly Frontignan*, *Chasselas de Fontainebleau*, *Muscat Blanc Ha-*

tif, Red Chasselas, and Chaptal; 4 varieties of apples, 4 of peaches, 2 of plums, and fruit of the *Psidium Cattleianum*.

From S. Walker, 60 varieties of pears, viz.:—Andrews, Belle et Bonne, Bergamotte, (Hampden's,) Beurré d'Aremberg, B. Brown, B. Duval, B. Diel, B. de Capiaumont, B. Easter, B. Rance, B. Golden, of Bilboa, Bezi Vaet, Bon Chrétien Williams's, Catillac, Chaptal, Chaumontel, Colmar, (Autumn,) Crassane, C. Althorp, Dearborn's Seedling, Doyenné Blanc, D. gris, D. doré, Duchesse d'Angoulême, D. de Mars, Epine Dumas, Eyewood, Figue, F. de Naples, Flemish Beauty, Fourcroy, Belle Lucrative, Fondante Van Mons, Gendeshaim, Glout Morceau, Hull, Jaminette, Johannot, Lawrence, Louise Bonne de Jersey, Madotte, Messire Jean, Marie Louise, Napoleon, Payency, Passe Colmar, Princesse d'Orange, Rousselet de Rheims, (?) Saint Ghislain, Seckel, Urbaniste, Verte Longue d'Automne, Van Mons Leon le Clerc, Le Curé, Bicknal Seedling, Vallée Franche,—3 varieties names unknown.

From Josiah Lovitt, about 80 varieties of pears, as follows:—Urbaniste, Julienne, Andrews, Alpha, Hacon's Incomparable, (?) Long Green, St. Julian, (?) Flemish Beauty, Columbia, Duchesse d'Angoulême, Bleeker's Meadow, Harvard, Williams's Bon Chrétien, Beurré d'Aremberg, Summer Franc Real, Figue de Naples, Belle Lucrative, Boucquia, Dix, Winter Orange, Louise Bonne de Jersey, Seckel, Dearborn's Seedling, Golden Beurré of Bilboa, Chaumontel, Lewis, Catillac, Charles Van Mons, (?) Wilkinson, Hericart, Napoleon, Marie Louise, Beurré d'Amalis, Brocas Bergamotte, Stone, (Ohio,) Jalousie, Doyenné White, Glout Morceau, Belle et Bonne, Le Curé, Gil-o-gil, Franchipane, Styrian, (?) Fulton, Bezi de La Motte, Easter Beurré, Passe Colmar, Fresh Pond, (?) Beurré de Capiaumont, Cranston's Favorite, Cumberland, Louis de Boulogne, Beurré Diel, Winter Nelis, McLaughlin, Van Mons, Paradise d'Automne, Great Citron of Bohemia, Brown Beurré, Hessel, Beurré Bosc, Passans du Portugal, St. Ghislain, Pound, King Edward, Musk Bon Chrétien, St. Michael Archangel, (?) Honey, Duchesse de Berri, Winter Crassane, Frederic de Wurtemberg, Surpasse Virgoulouse, Vicomte De Spoelberch,—8 varieties without names.

From O. Johnson, 60 varieties of pears, viz.:—Williams's Bon Chrétien, Dearborn's Seedling, Vallée Franche, Belle Lucrative, Beurré Rance, Cushing, Verte Longue, Bleeker's Meadow, Rousselette de Rheims, Rousselet Panachée, Seckel, Green Sugar, Beurré d'Amalis, Buffam, Duchesse d'Angoulême, Uvedale's St. Germain, Dix, Winter Nelis, Glout Morceau, Beurré d'Aremberg, Doyenné Blanc, Echasserie, Martin Sec, Belle et Bonne, Easter Beurré, Passe Colmar, Messire Jean, Hericart, Henry Fourth, Le Curé, Hacon's Incomparable, Beurré Diel, Prince's St. Germain, Jalousie, Beurré Bosc, Frederic de Wurtemberg, Capiaumont, St. Ghislain, Flemish Beauty, Louise Bonne de Jersey, Urbaniste, Johannot, Pope's Quaker, Epine d'Ete, Harvard, Napoleon, Bezi de la Motte, Julienne, Gil-o-gil, Franc Real d'Hiver, Princesse d'Orange, Calabasse, Washington, Catillac, Columbia, Beurré Bronze,—and 5 varieties without name; also 4 varieties of grapes, 2 of peaches, and 3 of plums.

From B. V. French, 66 varieties of apples, as follows :—Gloria Mundi, Yellow Belle Fleur, Hawthornden, Male Carle, St. Lawrence, Reinette du Canada, Porter, Fall Greening, Adams Sweet, French Sweet, Newtown Pippin, (Yellow,) Baldwin, Jewett's fine Red, Wellington, York Russet, Blenheim Orange, (?) Lady Apple, Royale, Winter Pearmain, Murphy, Nonsuch, Roxbury Russet, R. I. Greening, Sweet Greening, Wells Pippin, Jericho, Bourrassa, Red Winter, Dutch Codlin, Ruggles, Gardner's Russet, Bean Sweet, Danvers Winter Sweet, Seaver Sweet, Newark King, Mexico, Roman Stem, Blenheim Pippin, Fameuse, Hubbardston Nonsuch, Winter Gullflower, Spice, *Æsopus* Spitzemberg, Conway, Perry's Winter Sweet Russet, Fearn's Pippin, Long Russet, Beauty of Kent, Scarlet Nonpareil, Ribstone Pippin, Ross Nonpareil, Pumpkin Sweet, Red Winter, Sugar Sweet, Dominie, Smith's fine Table,—and several without names; also 36 varieties of pears, and 4 of peaches.

From the Pennsylvania Horticultural Society, about 30 varieties of pears, among which were the Moyamensing, Petre, Pennsylvania, Sieulle, Chapman, Lodge, Kingessing, Gansell's Bergamot, and other common sorts, including beautiful specimens of the White Doyenné; also about 30 varieties of apples.

From Cheever Newhall, 22 varieties of pears as follows :—Urbaniste, Belle Lucrative, Heathcot, Napoleon, Cushing, Fulton, Frederic de Wurtemberg, Dunmore, Althorpe Crassane, Andrews, Le Curé, Louise Bonne de Jersey, Glout Morceau, Beurré d'Aremberg, B. d'Amalis, B. Diel, Knight's Seedling, Wilkinson, Passe Colmar, Duchesse d'Angoulême, Black Pear of Worcester, Washington; also 3 varieties of apples, Early Crawford peaches, and Black Hamburg grapes.

From F. W. Macondry, about 30 varieties of pears, viz. :—Passe Colmar, Catillac, Louise Bonne de Jersey, Le Curé, Flemish Bon Chrétien, Cushing, Summer Thorn, Beurré d'Amanlis, Gros de Brussels, Easter Beurré, Napoleon, Washington, Beurré Diel, Glout Morceau, White Doyenné, Duchesse d'Angoulême, Archduke Charles, Queen of the Low Countries, Ananas, Soldat Labourer, (?) Beurré Moire, Rousselette de Rheims, McLaughlin, Van Mons Leon le Clerc, Brown Beurré, Urbaniste, Messire Jean, Beurré Bosc, Belle et Bonne, Crassane, Seckel, Bezi de la Motte,—3 varieties no name.

From J. F. Allen, 25 varieties of grapes, as follows :—White Gascoigne, Esperione, Black Prince, Chasselas de Fontainebleau, Golden Chasselas, Red Chasselas, Chasselas de Bar Sur Aube, Purple Sweetwater, Syrian, Black July, Black Hamburg, B. H. Wilmot's, B. H. Wilmot's No. 16, Black Lombardy, Sweetwater, White, and Grizzly Frontignan, Aleppo, White Tokay, Zinfindal, Ferral, White Nice, Miller's Burgundy, Wortley Hall, Tottenham Park Muscat, Muscat of Alexandria and Isabella; also Brunswick, Black and Early White Figs; 15 varieties of pears, Elruge nectarines, Lombard plums, and 2 kinds of peaches.

From Messrs. Winship, 40 varieties of pears, viz. :—Beurré d'Amalis, B. d'Hardenpont, B. Diel, B. Easter, B. Rance, B. Brown, Colmar d'Ete, Rousse Lench, Muscadine, Dearborn, Fulton, Gansell's Bergamot, Bezi

Vaet, Cumberland, Flemish Beauty, Winter Nelis, Passans du Portugal, Doyenné White, Seckel, Duchesse d'Angouleme, Frederic of Wurtemberg, Ananas, Rushmore's Bon Chrétien, Marquise, Heathcot, Vallée Franche, Passe Colmar, Louise Bonne de Jersey, Washington, Messire Jean, Glout Morceau, Belle Lucrative, St. Ghislain, La Fortunée, Surpasse Marie Louise, Wilkinson, Williams's Bon Chrétien, and some without name; also Grand Sachem apples, very large.

From J. M. Ives, Salem, 20 varieties of pears, viz.:—Petre, Dix, Belle Lucrative, Summer Rose, Bezi Montigny, Cabot, Buffam, Long Green, Bezi de la Motte, Beurré Bosc, B. Golden of Bilboa, B. d'Amalis, Washington, Bon Chrétien Fondante, B. C. Williams's, Bleeker's Meadow, Napoleon, Andrews, Winter Nelis, Cushing; some of the Belle Lucrative were from trees on quince, some on pear, and some on mountain ash.

From J. L. L. F. Warren, 36 varieties of pears, viz.:—Beurré Brown, B. Easter, B. d'Aremberg, B. d'Amalis, Winship's Seedling, (?) Bezi de la Motte, Stone, Marquise, Verte Longue Panache, Belle et Bonne, Williams's Bon Chrétien, Messire Jean, Black Pear of Worcester, Seckel, Louise Bonne de Jersey, Summer Franc Real, Buffam, Andrews, Duchesse d'Angouleme, Poire de St. Marc, Fortunée, Bishop's Thumb, Julienne, Bezi Montigny, Wilkinson, Figue, Doyenné doré, Marie Louise, Washington, Catillac, Duchesse de Mars, St. Ghislain, Madotte, Autumn Bergamot, Bergamotte de Paques; also 25 varieties of apples, 5 of plums, 3 of grapes, 2 of quinces and peaches.

From E. Wight, 14 varieties of pears, viz.:—Wilkinson, Vallée Franche, Dix, St. Ghislain, Burnett, Gansell's Bergamot, Cushing, Napoleon, Long Green, Urbaniste, Seckel, Passe Colmar, and Lewis; also 15 varieties of apples.

From W. Stearns, Salem, 25 varieties of pears, viz.:—Lawrence, Washington, Chaumontel, Winter Nelis, Urbaniste, Wilkinson, Ronville, Williams's Bon Chrétien, Autumn Bergamot, Harvard, Summer Thorn, Duchesse d'Angouleme, Beurré Brown, Orange, Napoleon, Seckel, Endicott, Long Green, White Doyenné, Rousselet de Rheims, Gansell's Bergamot, Bishop's Thumb, St. Ghislain, Platt's Bergamot.

From A. D. Williams & Son, 35 sorts of pears, viz.:—Beurré d'Amanlis, B. de Capiaumont, B. Easter, Passe Colmar, Harvard, Sylvange, Flemish Beauty, Columbia, Dix, Le Curé, Napoleon, Chaumontel, Seckel, Long Green, and other kinds; also 12 varieties of apples.

From James Arnold,—Royal Muscadine, Victoria, Black Hamburgh, St. Peters, and Muscat of Alexandria grapes. From T. Needham, 12 varieties of grapes:—Cannon Hall Muscat, Muscat of Alexandria, White Frontignan, Black Hamburgh, Syrian, Reigne de Nice, Golden Chasselas, Chasselas Musqué, Black Lombardy, Frankendale, St. Peter's, and Chasselas de Fontainebleau. From James Nugent, Black Hamburgh grapes. From A. Bowditch, Black Hamburgh grapes. From S. Pond, 12 varieties of pears. From E. M. Richards, 12 varieties of apples, including some fine specimens of the Walpole; and 2 varieties of pears. From J. H. Welch, Dorchester, 8 varieties of pears. From Jona. French, 15 varieties of pears,

part of them unnamed. From S. D. Pardie, New Haven, Henrietta, Dr. Totten's Seedling, and Edwards's Seedling St. Germain. From Rev. F. D. Huntington, a branch containing 8 Louise Bonne de Jersey pears. From J. S. Sleeper, 6 varieties of pears. From W. R. Austin, 7 varieties of pears, and 2 of peaches.

From N. Stetson, Bridgewater, splendid specimens of Crawford's Early and Stetson's Seedling peaches; also Fall Pippin apples. From H. Vandine, 12 varieties of pears, 5 of apples, 2 of peaches, and 2 of plums, one of which was the Coe's Golden Drop, very handsome. From I. Fay, Cambridge, 6 varieties of pears, 3 of plums, and 2 of peaches. From W. Clapp, Dorchester, 10 varieties of apples, and 3 of pears. From Geo. Hallett, 2 watermelons. From S. L. Goodale, Saco, Me., Le Curé pears, grown on the mountain ash. From A. Wellington, Lexington, 2 kinds of apples. From W. G. Lewis, Roxbury, Green Gage plums. From Anson Dexter, 3 varieties of pears, and 2 of apples. From Geo. Newhall, 8 varieties of pears. From A. D. Weld, 11 varieties of apples, and 4 of pears. From H. Adams, Waltham, Seedling pears. From S. P. Allen, Cambridge, Williams's Bon Chrétien pears.

From John Washburn, Plymouth, 11 varieties of pears, including Delices d'Hardenpont, Pitt's Prolific, Seckel, Louise Bonne de Jersey, &c.; also fine orange quinces. From W. R. Prince, Flushing, L. I., 6 varieties of pears, and Howard's Splendid, and Van Zandt's superb peaches; also fruit of *Cydonia japonica*, and Chinese Sand pear. From J. Deane, 6 varieties of apples. From Dr. D. Chaplin, Cambridge, 10 varieties of pears, and one of apples. From S. Dike, Stoneham, 3 varieties of pears, and Siberian Crab apples. From Henry Wheeler, Framingham, 2 varieties of apples, and 3 of peaches. From L. Slack, Garden Royal apples. From R. W. Cushman, Roxbury, fine Williams's Bon Chrétien pears.

From S. Downer, Jr., Williams's Bon Chrétien, Louise Bonne de Jersey, Golden Beurré of Bilboa, Epine Dumas, Le Curé, Belle et Bonne, Winter Nelis, Brown Beurré. From R. Crooker, Van Mons Leon le Clerc, Easter Beurré, Duchesse d'Angouleme, Dix, Louise Bonne de Jersey, Doyenné Blanc, Williams's Bon Chrétien, Napoleon, Beurré Diel, Iron, &c. From O. N. Towne, 13 varieties of pears; and Black Ham-burgh, Chasselas of Fontainebleau, and Frankindale grapes. From J. Owen, 5 varieties of apples, 7 varieties of pears, 7 of peaches, and Green Gage plums, and 3 varieties of grapes. From S. W. Cole, Quince apple, and Spring pippin, growth of 1846 and 1847. From B. Silliman, Jr., New-Haven, fine Catawba grapes. From N. P. Smith, Groton, a Seedling apple called the Moor. From H. Hosmer, Watertown, Williams's Bon Chrétien pears. From D. Wilbur, Jr., Somerset, Hull and Wilbur pears. From Messrs. Hyde, Newton, 11 varieties of pears, 2 of apples, 2 of peaches, and a watermelon weighing 38 lbs. From Samuel Phipps, 16 varieties of pears, and Gloria Mundi apples. From W. B. Kingsbury, 6 kinds of pears. From G. Merriam, 12 varieties of pears, and 3 of peaches. From George Andrews, Salem, 6 varieties of pears, and 3 of apples.

VEGETABLES.—From S. W. Cole, Chelsea, 30 varieties of potatoes, viz.:—

Victoria, Prince Albert, Long Red, Kidney, No 36, (Early), Hill's Early, Hall's Early, Knevet's Defiance, Early Malden, Ladies' Finger, White Chenango, Carter, Long White, Black, Wait's Seedling, Prince Edward, Ipswich Seedling, No. 29, St. Helena, Snowball, Pink Eye, Parker, Wellington, No. 30, Waterloo, Black Chenango, White Chenango No 2, Chenango, Early White Blue Nose, No 35. For this most valuable and extensive collection exhibited by Mr. Cole, he has the thanks of the Committee. This exhibition embraces varieties ripening from the earliest to the latest, all of very fine appearance, free from worms, rot, or canker. The Committee are of opinion that any gentleman desirous of selecting varieties for cultivation could not do better than to consult Mr. Cole's collection. Also Farmington pumpkin, Winter Crookneck squash, Turnip cabbage.

From Geo. Hallet, tomatoes. From G. C. Crowninshield, by John Quant, 3 fine egg plants. From O. N. Towne, extra fine egg plants. From E. M. Richards, Canada squash raised in 1846. From Daniel Brims, Roxbury, fine celery. From N. Stetson, Bridgewater, by H. Reed, giant tomatoes, one weighing 3 lbs. From Samuel Reed, East Cambridge, Seedling potatoes. From Josiah Stickney, very large beets. From B. V. French, long blood beets, turnip do, and Wisconsin squashes. From A. D. Weld, Long Orange carrots. From A. D. Williams & Son, Marrow and Canada squashes, Blood beets, Savoy cabbage, Drumhead cabbage, tomatoes and pumpkins. From Charles Howe, Dorchester, Canada squash raised in 1846. From Richard Waterman, Warwick, L. I., Early June potatoes. From Josiah Newhall, Lynnfield, Black Spanish radish, French Sugar beets, Club gourds, and Spanish peppers. From J. F. Allen, Giant tomatoes.

From F. W. Macondry, cabbages, marrow squash, Canada squash, turnips, beets, carrots, parsnips, field corn, and Lima beans. From Leonard Stone, Watertown, two new varieties of cabbage, seed received from Henry Colman, Paris. From William Bogle, Melrose, Scotch kale. From Parker Barnes, Appalachicola beans. From J. L. Gardner, Seedling potatoes. From J. L. L. F. Warren, *Trichsanthes Columbina*, Snake melon, squash, growth of 1846. From Alpheus Hardy, Andover, specimen of a stalk of wheat or Egyptian corn from seed received from the banks of the river Nile. From Otis Johnson, some fine Canada squashes. From W. M. Stone, Watertown, a double Crookneck squash, quite a curiosity. From W. H. Sumner, Clipper gourd.

The award of premiums was as follows :

FRUITS.

Apples.—Eben Wight, Robert Manning, Otis Johnson, Judges.

To B. V. French, for the best exhibition of apples, the Society's plate, valued at \$25.

To J. L. L. F. Warren, for the 2d best, the Appleton silver gilt medal, \$10.

To E. M. Richards, for the 3d best, \$5.

To J. L. L. F. Warren, for 12 specimens of the Hubbardston Nonsuch, \$5.

To John Owen, for 12 specimens of the Porter, \$3.

Pears.—Robert Manning, David Haggerston, and Eben Wight, Judges.

To Marshall P. Wilder, for the best exhibition of pears, the Lyman plate, valued at \$25.

To Samuel Walker, for the 2d best do., the Lowell silver gilt medal, \$10.

To Josiah Lovett, 2d, for the 3d best do., \$5.

To Samuel Pond, for 12 specimens of the Williams's Bon Chrétien pear, \$5.

To Henry Vandine, for 12 specimens of the Flemish Beauty pear, \$3.

The Committee, in awarding the premiums for the best pears of not less than 12 specimens, deemed it a duty incumbent on them to bestow the premium, (where there was a doubt,) in favor of the variety the quality of which had been repeatedly tested and approved. They would therefore beg leave to recommend a gratuity of five dollars, equal to the highest special premium,

To Ralph Crooker, for 12 specimens of the Van Mons Leon le Clerc pear, \$5.

Grapes.—David Haggerston, Alexander McLennan, Wm. Quant, Judges.

To Thomas Needham, gardener to O. H. Mather, Brighton, for the three best varieties, (two bunches of each,) the Lyman plate, valued at \$25.

To Hovey & Co., for the 2d best, \$10.

To Wellwood Young, gardener to Ja's Arnold, N. Bedford, 3d best, \$5.

Assorted Fruit.—C. M. Hovey, John Fisk Allen, D. Haggerston, Judges.

For the best basket of assorted fruit, containing a fine variety, to Otis Johnson, \$10.

For the 2d best basket, to W. Quant, \$7.

And they recommend a gratuity to A. Bowditch, for a basket of grapes tastefully arranged, \$5.

FLOWERS.

For Floral Decorations, &c.—Joseph Breck, A. Story, Wm. Quant, Alexander McLennan, L. Winship, S. R. Johnson, Judges.

For the best pair of vase bouquets for the marble vases, to Hovey & Co., \$10.

For the 2d best do., to J. L. L. F. Warren, \$6.

For the best pair of vase bouquets for the Bradlee vases, to James Nugent, \$10.

For the 2d best do., to Messrs. Winship, \$6.

For the best pair of parlor bouquets, to Messrs. Winship, \$5.

For the 2d best do., to Charles Brims, \$3.

For the 3d best do., to Hovey & Co., \$2.

For the best pair of hand bouquets, to A. Bowditch, \$3.

For the 2d best do., to James Nugent, \$2.

For the 3d best do., to R. West, \$1.

For the best bouquet composed of indigenous flowers, to John Quant, \$3.

For the 2d best do., to E. M. Richards, \$2.

For Designs, Baskets of Flowers, &c.—To Wm. Quant, for a moss vase on a pedestal, with flowers, first premium, \$12.

To J. Thomas, for a design, wrought with moss and flowers, 2d premium, \$8.

To Hovey & Co., for a design, mosaic work in asters and other flowers, 3d premium, \$6.

To Thomas Needham, for a grotto, 4th premium, \$5.

For Wreaths.—For the best not less than thirty feet, to S. A. Walker, \$10.

For the 2d best, to Wm. Quant, \$5.

For the 3d best, to A. Bowditch, \$3.

Gratuities.—To S. A. Walker, for a motto, on which was inscribed "Welcome, friends, again," with an evergreen wreath, star and eagle, \$7.

To Mrs. Sparrell, for grass design, \$4.

To Miss Bowker, do., \$3.

To Miss Russell, for one large and one small basket of flowers, \$4.

To Miss Russell, for a pair of stars, \$2.

To Miss Kenrick, for basket of flowers and wreath, \$2.

To Charles Brins, for mosaic design, \$3.

To O. N. Towne, for design composed of dahlias, \$2.

To Henry Reed, for design composed of dahlias, \$2.

To Samuel Walker, for design composed of dahlias, \$2.

To John Quant, for one pair of round bouquets, \$2.

To A. Bowditch, for wreath made by a child, \$1.

To J. L. L. F. Warren, for one pair of hand bouquets, \$1.

To Master A. R. Walker, for a "duck," \$1.

To A. McLennan, for fine cockscombs, \$3.

To Jonathan Mann, Jr., for best grass bouquets, \$3.

To J. L. L. F. Warren, for 2d best, \$2.

To James McNeill, for grotto and fountain, \$5.

VEGETABLES.

F. W. Macondray, A. D. Williams, Jr., Josiah Lovett, 2d, Judges.

To S. W. Cole, for thirty varieties of potatoes, among which were several superior seedlings, \$10.

To F. W. Macondray, for the best display and greatest variety of vegetables, \$10.

To A. D. Williams & Son, for the 2d best do. do., \$7.

They recommend a gratuity to D. Brims, for blanched celery, of \$5.

To William Bogle, for Scotch kale, a gratuity of \$3.

To S. Reed, East Abington, for a bushel of very fine seedling potatoes, a gratuity of \$7.

To Richard Waterman, Warwick, R. I., for a bushel of Early June potatoes, a gratuity of \$7.

ART. IV. Obituary.

DIED, in New Haven, (Conn.,) his native city, on the 22d of July last, HENRY WAGGAMAN EDWARDS, late Governor of Connecticut; favorably known to pomologists as the originator of several valuable pears.

Governor Edwards graduated at Princeton College in 1797, and subse-

quently filled, at different periods, the offices of Representative and Senator in the Congress of the United States, and Speaker of the House of Representatives, and Governor of his native state.

But, however extensive and enduring may be his fame by virtue of his many exalted stations and great public services, his name is probably destined to a wider notoriety, and to be handed down further to coming generations, in connection with his pomological labors.

In the fall of 1817, and the following spring, Governor Edwards planted the seeds of pears, with the design of obtaining new and superior varieties of this fruit. In doing so, he selected the seeds of the best which could be procured, including many sorts, but the number was then very limited compared with our day.

This being the first systematic attempt of the kind in this country, as far as the writer is informed, was regarded by some of his neighbors with ridicule, while the more considerate of them considered it but a doubtful experiment. The result of the project is no longer conjectural: of some forty or more healthy bearing trees thus produced, a large proportion are valuable varieties. Some proved worthless; several rate highly for culinary purposes; while others are destined to take a high rank as table fruits. Of the latter, may be mentioned the *Calhoun*, *Elizabeth*, *Dallas*, *Henrietta*, *Citron*, and some others; several of which have been described in horticultural periodicals, and in the *Fruits and Fruit Trees of America* by Mr. Downing. So propitious a result has already had its natural influence on other cultivators in his vicinity, many of whom have, for several years past, been following his example of raising pears and other fruits from the seed.

New Haven, September, 1847.

D.

[Our readers will remember our descriptions and engravings of most of the above fine sorts, and we are gratified in being able to offer so just a tribute to the pomological labors of Mr. Edwards.—*Ed.*]

HORTICULTURAL MEMORANDA

FOR OCTOBER.

FRUIT DEPARTMENT.

Grape Vines, in the cold houses, will now be nearly ripe, and will need less attention; the principal care required being to keep the house thoroughly ventilated in all good weather, guarding against damp, which occasionally, at this period of the year, is troublesome: all the young and superfluous laterals may now be cut out, leaving only the wood which is fully ripe, to be shortened in at the winter pruning in December. Vines in greenhouses will now have matured their wood and about finished their growth: pick up all dried or decayed leaves, and prune off all young unripe laterals, leaving only the mature growth. Keep the house open day and night in good weather.

Strawberry beds will require a final hoeing and weeding for the season, during the month, and preparatory to being slightly covered next month.

Currant, Gooseberry, and Raspberry bushes may be set out this month.

Fruit trees of all kinds may be safely removed during the whole of the month: it will be for the benefit of the trees if the ground is prepared as early as possible by a thorough trenching or digging.

Peach trees recently budded will require attention to see that the ligatures are not girdling the trees.

FLOWER DEPARTMENT.

Dahlias.—The first severe frost will destroy the dahlias, and the roots should be taken up immediately after. We even prefer to take up young roots when the tops are quite green: if very severe frosts occur, the stem is often damaged so far down as to endanger the death of the roots before spring. Take up on a dry day, and place in the cellar.

Japan Lilies may now be placed under the stage of the greenhouse, or in the cellar, placing the pots on their sides.

Hyacinths, Tulips, Narcissi, and similar bulbs, may be planted this month.

Ixias, Sparaxis, Oxalises, &c. should all be potted this month.

Pelargoniums will soon require to be removed to the greenhouse. Cuttings not potted off should be attended to at once.

Roses planted out in the borders during the summer should now be taken up and potted. Young cuttings should also be potted off. Old plants intended for forcing should be repotted if not already done. Layers of hardy kinds should be taken up and placed in a frame, where they can receive protection. Hardy varieties may be safely transplanted this month in the open border.

Azaleas should be removed to the greenhouse.

Achimenes of the different sorts, now done flowering, may have the tops cut down, and the pots placed away under the stage.

Gloxinias and *gesneras* may have the same treatment as the achimenes.

Fuchsias done blooming may be placed away under the stage, where it is free from damp.

Camellias should now be removed to the greenhouse, giving the pots a good washing, and the foliage a thorough cleansing, if possible.

Verbenas and *petunias* may now be raised from cuttings, or by potting rooted layers of the former.

Carnations and *picotees* should be protected in frames.

Chrysanthemums should now have occasional waterings with guano.

Mignonette and *Sweet alyssum* should be placed on an airy shelf near the glass.

Abutilons, planted out in the border, should now be taken up and potted.

Cactuses should now be sparingly watered.

Herbaceous plants of all kinds can now be successfully transplanted.

Greenhouse plants of all sorts, planted out in the open ground, or plunged in pots, should now be potted, and prepared for removing to their proper places.

THE MAGAZINE OF HORTICULTURE.

NOVEMBER, 1847.

ORIGINAL COMMUNICATIONS.

ART. I. *Descriptions and Engravings of Select Varieties of Pears.* By THE EDITOR.

IN continuation of our article descriptive of select pears, we have the pleasure of drawing the attention of cultivators to six native varieties, some of them of great excellence, particularly Knight's Seedling and Winship's Seedling. Though both of these have been known for some time, they do not appear to have been generally introduced into cultivation. It is gratifying to find the list of American pears continually augmenting, and more gratifying to find some whose merits have yearly improved, as soil or locality may have been favorable to the trees, or judicious cultivation, and more careful ripening, may have produced better specimens. We are more and more convinced that, ere long, as with the apple, our greatest reliance must be placed on our native varieties. Their peculiar hardiness and adaptation to our climate give them a value over most foreign sorts, and, among the many superior ones already brought to notice, the cultivator need have no trouble in making a selection of the very finest pears.

79. KNIGHT'S (R. I.) SEEDLING. *N. E. Farm.* Vol. X. p. 82.

In the fall of 1831, Mr. A. Foster, of Providence, R. I., sent to the Massachusetts Horticultural Society a box of pears, which he called Knight's Seedling, (*fig.* 39,) and which he accompanied with the following letter:—

“With this, you will receive a small box containing about a dozen specimens of the Knight's Seedling pear. This is a

new variety, a native of this state, and is considered by many to be equal to the St Michael or the Seckel. Were it left to me to decide, I should hesitate, before I placed this or any other pear on a *par* with the St. Michael; nor have I, as yet, seen any variety that possessed the sweet and delicate flavor of the Seckel.

"The original tree is now standing on the farm of Mr. Wm. Knight, of Cranston, in a wild, rocky and uncultivated spot,

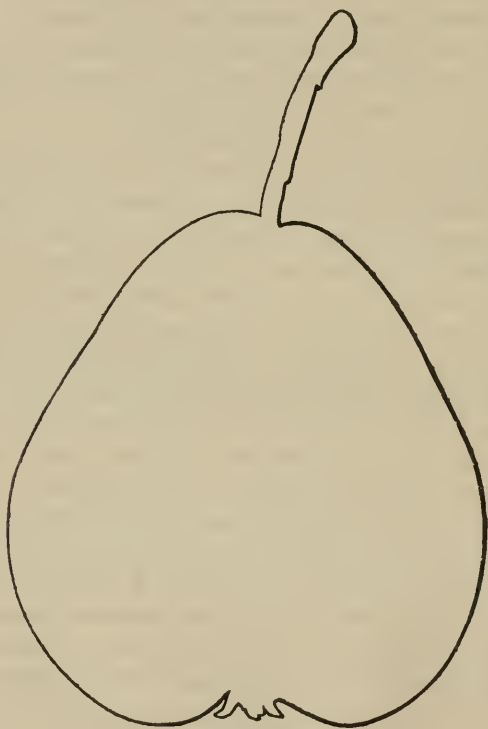


Fig. 39. *Knight's Seedling.*

remote from any dwelling, and, until within a few years, has almost remained unnoticed and unknown. Within forty rods of this pear tree, separated by a piece of swampy ground, stands another of natural growth, but of no value whatever."

Such is the account given of it *sixteen* years ago, since which period, we are not aware of the fruit having been often seen

until last year. It is comparatively quite a new fruit. The Committee who tasted the fruit considered it "well worthy of cultivation." Mr. Foster kindly offered to send scions for distribution in the spring of 1832.

Soon after this, Mr. Manning introduced it into his Pomological Garden at Salem, fruited the tree, and disseminated the variety; but, like many other new fruits originated or brought to notice at that time, when there were but few zealous cultivators who appreciated the importance of giving new fruits a trial, it did not attract much attention. Even in Mr. Manning's garden, among the numerous varieties which he was then receiving from Van Mons and other sources, its merits were overlooked. In Rhode Island, its cultivation has been very limited, having been confined to the immediate locality of its origin, and, up to the fall of 1846, it appears to have been very little known, although Mr. Manning's son has occasionally exhibited it, but without knowing much of its history or qualities. Since last year, however, when some good specimens were shown by Col. Wilder, who received the scions of the late Mr. Manning, its excellence has been justly appreciated, and another trial of it the present season has given it a rank among the best pears.

In general appearance, it greatly resembles the Belle Lucrative, and some specimens that we have eaten have been nearly or quite as good. The tree is vigorous, hardy and productive: wood yellowish, smooth, and very free from specks.

Size, large, about three inches long, and two and three quarters in diameter: *Form*, obovate, regular, rather full at the crown, and tapering to the stem: *Skin*, fair, smooth, green, becoming yellowish green when mature, and thickly covered with dark green specks: *Stem*, medium length, about one inch long, moderately stout, curved, and obliquely inserted with scarcely any cavity: *Eye*, medium size, open, and but little sunk in a broad shallow basin; segments of the calyx broad and partially reflexed: *Flesh*, white, rather coarse, melting and juicy: *Flavor*, rich, sugary and excellent, with a pleasant aroma: *Core*, small: *Seeds*, medium size, dark. Ripe in September.

80. JOHONNOT. *Book of Fruits*, 1st Ed. p. 74, No. 27.

Franklin, (so named by the Mass. Hort. Soc. in 1831.)
N. E. Farm., Vol. X. p. 103.

The Johonnot pear, (*fig. 40.*) does not appear to be properly appreciated. It is one of the four varieties which the late Hon. John Lowell stated were the only good native sorts which we possessed in 1828; yet it is by no means common in collections, and rarely to be found in the market: this, how-

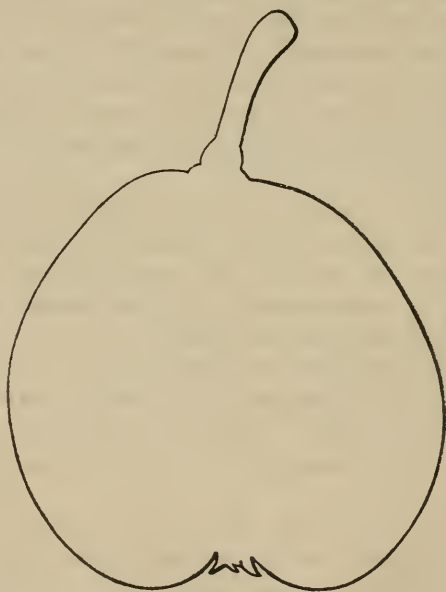


Fig. 40. Johonnot.

ever, cannot be on account of its excellence, for it is a peculiarly rich and spirited pear, and highly esteemed by pomologists. It has the name of being a rather shy grower, which has induced cultivators to neglect it, substituting other and inferior sorts, even before they have given this a fair trial. Around Salem, it is grown to a fine size, and we apprehend that, in a good rich soil, it will prove a productive and profitable pear.

The Johonnot was raised by the late George S. Johonnot,

Esq., of Salem, and first came into bearing, we believe, about the year 1823 or '24. A drawing of the fruit was sent to the Massachusetts Horticultural Society, and, at the request of Mr. Johonnot, it was named the Franklin pear; but, for some reason, it does not seem to have been generally adopted. Through Mr. Manning, it was introduced to cultivation.

The tree, under ordinary cultivation, is a rather slow grower, and the productiveness of the variety renders it yet more tardy in attaining a good head: but, like the Andrews, and some other sorts, it should not be allowed to bear too much before the tree attains a fair size. Young trees in our collection appear as vigorous as a majority of kinds. It seems to prefer a good deep rich soil. The wood is of a dark reddish brown, and the leaves are peculiarly glossy and handsome. Growth upright when young, becoming spreading in older trees.

Size, medium, about two and a half inches long, and two and a half in diameter: *Form*, roundish obovate, irregular, swollen on one side, and tapering roundly to the stem: *Skin*, slightly rough, pale greenish yellow, partially covered with dull russet, and little browned on the sunny side: *Stem*, medium length, about one inch long, stout, uneven, russety brown, and obliquely attached to the fruit by a swollen, fleshy base, without any cavity: *Eye*, large, open, and moderately sunk in a rather large, round, open basin; segments of the calyx rather long, and recurved: *Flesh*, white, coarse, melting and very juicy: *Flavor*, rich, brisk, and excellent, with a delicious musky aroma: *Core*, large, and slightly gritty: *Seeds*, small, broad, flat, and dark brown. Ripe in September.

81. WINSHIP'S SEEDLING. *Mag. of Hort.* Vol. X. p. 212.

For six or eight years, the Messrs. Winships have occasionally exhibited a seedling pear, but, for some reason, it has not attracted much attention until the past season. Four years since, it first came under our eye, and the specimens we tasted were so good that we made a drawing and description of the variety: but, upon making inquiry of some cultivators in

regard to its excellence, we found but few who knew it, and those who did thought we had overrated it. We therefore deferred giving a full description until another trial, and briefly noticed it as above referred to.

This variety, (*fig. 41,*) originated in the nursery of the Messrs. Winships of Brighton, about fifteen years ago. Neither Kenrick, Manning, or Downing, even mention it, and it

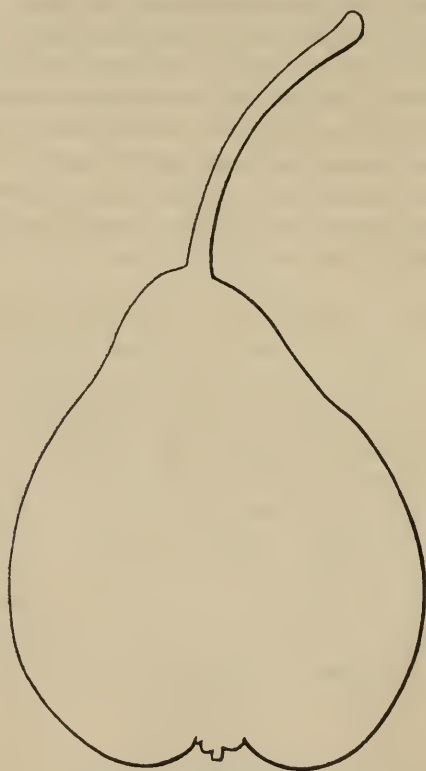


Fig. 41. Winship's Seedling.

seems to have been almost entirely confined to Messrs. Winships' grounds, where it has fruited abundantly every year, coming in at a season when there are few pears to be had. The present year, the fruit was all gone when Dearborn's Seedling was ripe, and its season is between the Citron des Carmes, (or Madeline,) and the former variety, when there are no pears, if we except the Jargonelle, of equal merit.

The tree is of vigorous growth, with yellowish wood, and

produces abundantly: the fruit is handsome, somewhat resembling a small specimen of William's Bon Chrétien. It comes into bearing the third or fourth year.

Size, medium, about two and three quarters of an inch long, and two and a half in diameter: *Form*, pyramidal, full at the crown, slightly contracted below the middle, and tapering to the stem: *Skin*, fair, smooth, pale lemon yellow when mature, with a few traces of russet, and a tinge of blush on the sunny side: *Stem*, long, about one and a half inches, rather slender, curved, greenish brown, with dark spots, slightly fleshy at the base, and inserted without any cavity: *Eye*, medium size, closed, and moderately sunk in a round basin; segments of the calyx medium length: *Flesh*, white, fine, melting and juicy: *Flavor*, rich, sugary, pleasantly perfumed and excellent: *Core*, large: *Seeds*, large, broad, pale brown. Ripe in August

82. HENRIETTA. *Mag. of Hort.* Vol. XI. p. 252.

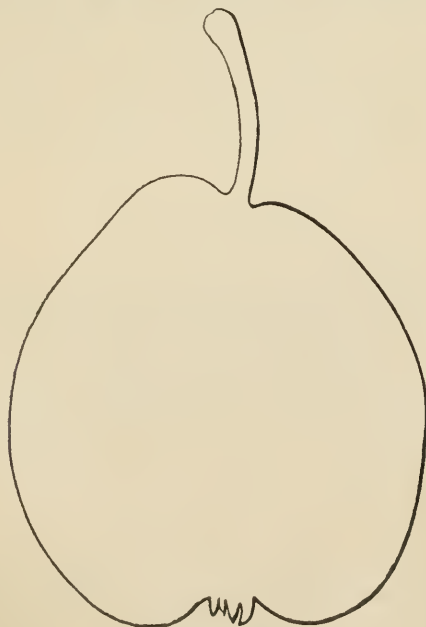


Fig. 42. *Henrietta*.

We have already described three of Gov. Edwards's seedlings, viz., the Elizabeth, Dallas, and Calloun, and we now

add another which has proved to be of nearly equal merit. There are others of his seedlings which are said to be excellent, but these are all we have found worthy of cultivation among the kinds which we have had the opportunity of trying.

The Henrietta, (*fig. 42,*) is a medium sized and pretty pear, and the tree is hardy, vigorous, and very productive. It also ripens the last of August and early in September, before Williams's Bon Chrétien and other larger varieties are in eating.

Size, medium, about two and a half inches long, and two and a quarter in diameter: *Form*, obovate, inclining to oval, tapering towards each end, and rather obtuse at the stem: *Skin*, fair, smooth, dull yellow, thickly covered with large crimson dots on the sunny side, and slightly russeted at the base of the stem: *Stem*, medium length, about one inch long, moderately stout, smooth, curved, and inserted little on one side in a shallow cavity: *Eye*, medium size, closed, and rather deeply inserted in an abruptly depressed and furrowed basin; segments of the calyx slender, projecting: *Flesh*, white, rather coarse, melting, and juicy: *Flavor*, rich, saccharine, and pleasantly perfumed: *Core*, large: *Seeds*, medium size, obtuse, very dark. Ripe the last of August and beginning of September.

83. LEE'S SEEDLING.

This is the name we have given to a very good pear, (*fig. 43,*) sent to us by J. C. Lee, Esq., of Salem, in whose garden it originated a few years since. Three years ago, when it came into bearing, Mr. Lee informs us, it did not appear to possess much merit, but, last season, it was a great deal better, and, the present year, we found the specimens sent to us to be exceedingly good, sufficiently so to merit a place in a large collection of pears. It possesses somewhat the appearance of the Seckel, having a russety skin, and a brownish red cheek, and it has much of the spicy aroma which gives the Seckel its high character. If the flesh was more melting, it would rank among our best pears.

Size, medium, about two and a half inches long, and two

and a half in diameter: *Form*, roundish oval, largest in the middle, tapering to each end, and obtuse at the stem: *Skin*, slightly rough, pale greenish russet, and little browned on the sunny side, and covered with minute russet specks: *Stem*, short, about half an inch long, moderately stout, fleshy at the

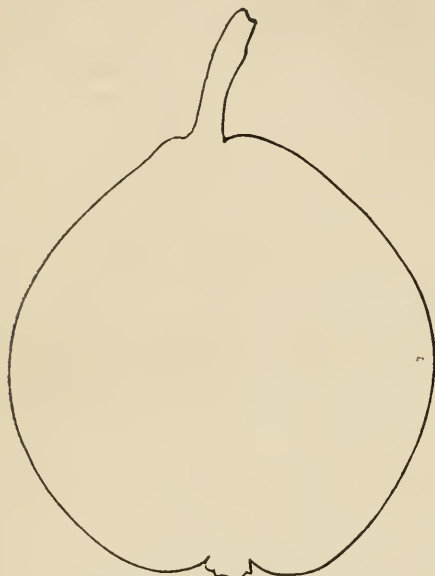


Fig. 43. Lee's Seedling.

base, and obliquely inserted without any cavity: *Eye*, medium size, open, and slightly depressed in a very small shallow basin; segments of the calyx short, round: *Flesh*, white, little coarse, half melting and juicy: *Flavor*, rich, sugary, and brisk, with a spicy aroma: *Core*, large: *Seeds*, small. Ripe in September.

84. HANNERS.

Hannas, of various collections.

It has generally been supposed that the Hanners pear, (*fig. 44*,)—incorrectly called Hannas—was a foreign variety, and that the original tree was imported from France. We had formerly entertained this opinion, but when, among all the

numerous varieties which have been received from abroad during the last twenty years, this has not been found among those which have fruited, we concluded there must have been some error in the generally received opinion of its foreign origin, and that it should be considered a *native* fruit. Impressed with this opinion, we recently called on Mr. Hanners, who resides in Boston, and who is now upwards of eighty years of age, and gathered the following facts, which show con-



Fig. 44. Hanners.

clusively that it is a native variety, which probably originated in this city.

Before the Revolution, a large tract of land on Federal street was owned and occupied by Col. Webb, as a garden and pasture. Mr. Hanners's garden adjoined that of Col. Webb. At that time, Col. Webb had several fine pear trees, as well as other kinds of fruit, in his garden, many of which, especially the pears, were imported from England. Mr. Han-

ners had two pear trees growing in his garden, and these he had grafted with scions procured from Col. Webb's trees. One of them was the White Doyenné, (or St. Michael,) and the other the St. Germain. Some time subsequent to the planting of these trees, he had a small pear tree from Col. Webb's garden, which had not been grafted. This was the one now known as the Hanners. The three trees were all that were planted in Mr. Hanners's garden, and they were all growing and bearing fruit, up to 1844, when the place was sold, and the trees cut down. Mr. Hanners's daughter also stated to us, that she well recollects when the tree first came into bearing; she had been to school, and, when she came home, her parents showed her some of the pears, which had just been gathered, and she then remarked that they looked "more like squashes than pears" from the remarkably obtuse form of the stem end, which gives this variety a resemblance to a bell squash. The fruit was very large the first year, when it bore only a small quantity. It continued to produce an abundant crop of fine pears.

The late Mr. Manning introduced this pear to notice. He first saw it in the market where it was sold as the St. Michael, and generally brought the handsome price of fifty to seventy-five cents per dozen. Tracing the pear to Mr. Hanners's garden, he procured a few of the scions, and subsequently exhibited the fruit; since which period, it has been considerably disseminated, and, from its excellence, deserves a place in every good collection. It greatly resembles the Cushing in quality, having the same very melting flesh and yellow skin. Mr. Manning and some amateurs in Salem have doubted whether it should not be considered as a synonyme of the latter; but its very obtuse form should at once set at rest all such doubts, how much so ever they may otherwise appear similar. If this is not sufficient, the growth of the tree, color of the wood, and form of the leaf, should at once do so. The shoots of the Hanners are upright, and of a dull *yellow*, while those of the Cushing are partially spreading and of a dull *red*; and the leaves of the Cushing are considerably serrated, while those of the Hanners are nearly entire.

Size, large, about three inches long, and two and a half in diameter: *Form*, oblong, full at the crown, little contracted in

the middle, and very broad and obtuse at the stem: *Skin*, fair, smooth, yellowish green, becoming pale yellow when mature, and regularly covered with large, conspicuous, pale russet specks: *Stem*, rather long, about one and a quarter inches, stout, curved, much swollen at the base, and obliquely inserted in a rather shallow open cavity: *Eye*, small, open, and slightly sunk in a small shallow basin; segments of the calyx short, round: *Flesh*, white, fine, melting, and very juicy: *Flavor*, rich, sprightly, vinous, and little perfumed: *Core*, large: *Seeds*, medium size, long and pointed. Ripe in September.

ART. II. *Garden Notes.* By Dr. M. A. WARD, Athens, Ga.

May 1.—I have often heard it asserted that, although the common English ivy would grow in common soil, and flourish indifferently well on trees and wooden walls, yet it would only flower when supported on old stone work. Last autumn, a stem of it, running up the north side of my house on a wooden wall, and near the tin water spout, not only flowered profusely, but set and ripened all its fruit. It proved quite ornamental. Its dense clusters of large, curiously acorn-shaped berries of a jet black wherever the thick ash-colored bloom happened to be rubbed off, remained all winter quite undisturbed by birds or insects, though looking very temptingly. It was not till one morning in the first part of April that I saw a pair of mocking-birds exploring the vine, and, after some time, they began to peck at and taste the berries—very slowly and cautiously—as if aware that they were experimenting upon unknown aliment. The rascals seemed perfectly conscious that they were not Black Tartarian cherries. The next morning I looked, and not a berry was left.

May 12.—*Echinocactus Ottónis* has a very fine flower fully expanded. The plant is about six years old, and five inches in diameter. Last year, it showed two buds, but they fell off when half grown. They come out on the ridges at some distance from the central crown, where I expected to see them, as I believe is the manner of most melo-cacti. The flower

stood stiffly erect, about two thirds as large, and of the same form as that of *Cereus grandiflorus*, the calyx and petals all of one color, which is a most delicate blush, like that of Lady Hume's camellia, shading off to a deeper tinge at the midribs; stamens white, as numerous and disposed as in the *grandiflorus*: the tube of the calyx showing also the same exquisite tinge of green, nearly scentless; opened about nine o'clock—closed forever at nine at night.

Sept. 1.—I have never observed, in reports of floral exhibitions, or in notices of visits to northern gardens, one of my decidedly favorite climbing plants, the *Clitoria*, or, as I believe it is now called, *Vexillaria ternatra*. Its very large, upside down papilionaceous flowers, of the richest mazarine blue, are exceedingly grateful to the eye at this season of the year. I have not yet seen *Ipomæa Léarii*, but, until I do, I certainly shall doubt if it can compete with my beauty when gracefully trained. *Vexillaria virginica*, and *V. Mariàna* are also well deserving a place in every garden. I believe they are all perennials, but may be treated as annuals. *Ipomæa Bónanox* is another magnificent climber, making a most exuberant growth, with singularly shaped leaves and flowers, having a tube six inches long, and the limb of the corolla curiously plaited, of the purest white. It would scarcely ripen its seeds at the north, but it would be well worth while to obtain them from the south every year.

Sept. 16.—The Guernsey Lily is now splendidly in flower with me. Some bulbs have been left neglected and forgotten in the ground for four or five years. Several of them now send up three naked scapes two and a half feet high, each with an umbel of six to eight flowers.

Sept. 18.—*Chromatella* is a better rose than *Solfitaire*,—a little better in color and in form, and, with us, a much more free bloomer. Both are rampant growers. A cutting of *Solfitaire*, put down about a year ago, is now ten feet high, and has probably another month to grow before checked by frost. They will certainly form most magnificent *bushes* for another year: but I have seen half open buds of Rivers's Yellow Tea [Qy. Yellow Persian—*Ed.*] which to my taste must surpass what either of them can produce.

La Reine produces huge buds, but I am jealous they will

prove to be what we call *hard-headed*, that is, open badly, or not at all, like Smith's yellow Noisette, and Bourbon Tea.

Athens, Ga., Sept. 20, 1847.

ART. III. *Wendell's Mottled Bigarreau Cherry; with an Engraving of the Fruit.* By Dr. HERMAN WENDELL, Academy Park, Albany, N. Y.

SOME time since, we noticed this new and fine cherry as having been exhibited before the Albany and Rensselaer Horticultural Society in June last, where it attracted much attention; and, in our September number, we announced that a description of it would soon appear in our pages. Owing, however, to some delay, the drawing did not come to hand in season, and we now have the pleasure of presenting it with a correct description by Dr. Wendell.

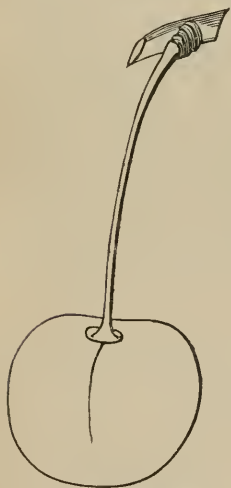


Fig. 45. *Wendell's Mottled Bigarreau Cherry.*

This new and beautiful variety is the produce of a seedling tree grown by Dr. Wendell, of Albany. The seed was of the large white Bigarreau, from a garden of that city which has in it a collection of the finer varieties of the cherry. The seed was sown in 1840, and the tree first bore a few cherries in 1845. Dr. Wendell's description is as follows:—

The mottled Bigarreau, (*fig. 45*,) is of large size, regular, obtuse-heart-shaped, dark purplish red, and beautifully mottled with dark points, those points becoming quite indistinct, however, when the fruit is fully ripe; the suture is distinctly marked with a dark line extending about half way round the fruit. The stalk is about an inch and a half long, somewhat stout, and set in a round and regular depression. The flesh is firm and crisp, though not tough, but juicy, high-flavored and rich. The fruit is ripe from the tenth

to the fifteenth of July, about the time of Downer's Late Red. The tree is of upright growth, quite thrifty, and an early bearer, as the seed was sown only seven years since, and this is the third time it has borne. The first year, it bore three cherries!—last year, about a dozen!—and this year, (1847,) more than a quart!

H. W.

Academy Park, Albany, September, 1847.

ART. IV. *Floricultural and Botanical Notices of New and Beautiful Plants figured in Foreign Periodicals; with Descriptions of those recently introduced to, or originated in, American Gardens.*

Mr. Beck's new Pelargoniums of 1847.—Last winter, (p. 41,) we presented our readers with an article on the Cultivation of the Pelargonium, and, at the same time, gave a full description of his seedlings, of 1845 and 1846, and which were the leading kinds exhibited the past season at the London exhibitions. We now present a full description of his *newest* seedlings, which have not yet been exhibited only by himself, and which attracted universal admiration at the May and June shows of the London Horticultural Society. They are offered for sale, young plants to be delivered in October 1847, at £1 11s. 6d. sterling each:—

CENTURION.—A flower of moderate size; deep rosy purple under petals, with a blotch on each; centre white, with rich-colored top petals; prolific bloomer, and excellent habit.

CRUENTA.—A high-colored flower, with broad under petals of a rich crimson salmon color; top petals deeper in tone, with a large blotch terminating abruptly in the centre, which is white; particularly stout habit.

CAVALIER.—A remarkably bright flower; lower petals of a delicate salmon color; a scarlet hue pervades the top petals, which have a deep blotch, and are velvety in texture; a very constant and prolific bloomer, very distinct, and an excellent flower for exhibiting, though of feeble habit, and with parsley-shaped foliage.

CASSANDRA.—Dark maroon upper petals one mass of color, except a narrow clean bright margin; lower petals light pink; free bloomer, and good habit.

GULIELMA.—A very smooth, constant, and well-shaped variety; a deep lilac purple spot shades off to the margin of the upper petals; the lower ones are of a lighter color, with a clean white eye; excellent habit and bloomer.

GUSTAVUS.—Striking flower; upper petals very dark maroon blotch, with deep rose edge; lower ones rose ground, with whitish eye deeply veined down to the centre; good habit, free bloomer, and constant.

HONORA.—A round, moderate-sized flower, very clean pinkish white lower petals, with steady purple maroon spot upon the upper ones, leaving a well-defined margin; not a free bloomer or strong habit.

ROSAMUND.—A novel variety, of a general rich rosy purple, with striking white eye, fine dark spot terminating well at the base of the petals, and shading gradually off to the margin; good habit, free bloomer, and constant.

BLANCHE.—Large pinkish white flower, with well-defined dark spot, broad petals, but not smooth on the edges; abundant bloomer, and good habit.

GRANDIFLORA.—A thin, large, good-shaped, constant variety, rosy-scarlet lower petals, the upper ones of a deeper color, with dark crimson spot veining off to the edge and throat.

Anemone japonica.—This very beautiful plant is now in bloom in our collection, and it is a fine acquisition to our stock of late flowering perennials. A young plant imported last February, has grown so rapidly as to fill a pot ten inches in diameter, and, during the whole of October, it has been one of the finest objects of the conservatory. It grows about fifteen inches high, with a neat anemone-like foliage, and the pale rosy flowers, which are semi-double, and rise on tall stems, are exceedingly showy. Throughout the summer, it has been placed in the open air.

Céstrum aurantiacum is also now flowering in the stove, where its panicles of deep yellow, tubular blossoms are highly ornamental, especially at this season of the year, when there are but few yellow flowers. The plants have been kept in the greenhouse all summer, and, now brought into a little

higher temperature, the flowers are developed in all their beauty.

Calystègia pubescens.—This beautiful plant, which we have already described, (p. 358,) and which has recently flowered in our collection, will probably prove a most valuable summer flowering plant. M. Van Houtte states that the mere figure of the plant does not give scarcely any idea of the “floral luxury which is developed under good culture. The little roots or rhizomes were left in the open ground, only protected with a good covering of leaves, and this year they flourished in a most remarkable manner. The branches were more than six feet long, and much ramified, gracefully twining round the branches of trees which had been placed in the form of a hedge, and entirely covering them with their leaves. They flowered splendidly all summer, and were, as late as Sept. 15th, covered with a multitude of blossoms, much larger in size, and more brilliant in coloring, than the English figure. The flowers are quite full and double, of a beautiful rose, and, in their form, resemble large, irregular roses, which have been fixed upon the stem of a *Convolvulus*. Experience proves that it will be a fine acquisition to summer flowering plants in the open air.” From the success which has attended the culture of *Ipomæas* in the open ground, we suspected that the *Calystègia* would thrive well; but it has hitherto been rather too rare to spare the plants for this purpose. Another year, we shall try M. Van Houtte’s plan.—*Ed.*

33. THIBAU'DIA PULCHERRIMA *Wallich* Beautiful Thibaudia.
(*Vacciniacæ*)

A greenhouse shrub; growing four to six feet high; with yellow and scarlet flowers; appearing in winter; a native of India; increased by cuttings; grown in heath soil and loam. *Flore des Serres*, pl. 243. 1847.

A very showy and beautiful shrub, attaining the height of four or five feet, with branches clothed with immense clusters of yellow and scarlet tubular flowers, somewhat resembling the larger heaths. The flowers appear only on the two year old wood, in pendent fascicles of from twelve to twenty each, in all the stages of development, and, from their peculiar striated aspect, present a remarkably gay appearance. It was found in the north of India, by Dr. Wallich, and it has recently been introduced to England by Messrs. Lucombe,

Pince & Co., of Exeter. The cultivation is simple, only requiring a good soil, composed of loam, leaf mould, and heath soil. The flowers begin to open in December, and bloom till spring. (*Flore des Serres*, July.)

34. *CAMPA'NULA NO'BILIS* *Lindl.* Noble-flowered Campanula.
(*Campanulacæ.*)

A half-hardy (or hardy) herbaceous plant ; growing three feet high ; with blue flowers : appearing in autumn ; a native of China ; increased by division of the root ; grown in any good soil. *Flore des Serres*, pl. 247. 1847.

In habit, grandeur, and the form of its flowers, this fine species resembles the Blue Bell ; it is, however, perennial, and the flowers are larger than the Blue Bell, measuring three inches long, and one and a half in diameter. The leaves are deeply heart-shaped, of a bright pale green, and placed on footstalks from six to nine inches long. From among them rises the flower stem, which branches at the bottom, and bears upon its divisions several fine nodding flowers, which seem to be the largest yet found among campanulas. The corolla is pale purple on the outside, paler within, and sprinkled with bright purple dots, exceedingly beautiful.

This is one of Mr. Fortune's acquisitions in China, where he found it ornamenting the gardens of Chusan and Shanghæ. It has hitherto been treated as a greenhouse plant ; but there is little doubt it will be as hardy as the other species. Our plants, which were imported last spring, were not quite strong enough to bloom, but will do so next year. When our stock is more abundant, we shall try its hardiness in the open ground. It prefers a soil principally composed of rough sandy peat. (*Flore des Serres*, &c., July.)

35. *ACHI'MENES IGNE'SCENS* *Nob.* Brilliant-colored Achimenes.
(*Gesneracæ.*)

A greenhouse plant ; growing two feet high ; with scarlet flowers ; appearing in summer ; a native of Guatemala ; increased by offsets ; grown in peat, leaf mould, and sand. *Flore des Serres*, pl. 248. 1847.

New species are yearly being added to this fine tribe, and the present is one recently received in the collection of Van Houtte from Guatemala. In general habit, it resembles *hirsuta*, but the flowers are clear scarlet, except the throat, which is yellow. With all the brilliancy of the old *coccinea*, its habit is stronger, and flowers much larger ; cultivated like the other species. (*Flore des Serres*, &c., July.)

36. NIPHÆA RU'BIDA *Hooker* Reddish Niphæa. (*Gesneriacææ.*)

A greenhouse plant ; growing one foot high ; with white flowers ; appearing in summer ; a native of Mexico ; (?) increased by offsets ; grown in peat, leaf mould, and sand. *Flore des Serres*, pl. 251. 1847.

A much more beautiful species than the old oblónga, not only in the more numerous flowers, but in their size ; the flowers are white, and borne on long peduncles, forming large clusters. The leaves are also handsome. It was introduced into England and Belgium about the same period. (*Flore des Serres*, &c., July.)

37. GARDÊNIA MALLEÍFERA *Hook.* Clapper-bearing Gardenia. (*Cinchonâcææ.*)

A stove shrub ; growing four feet high ; with pale buff flowers ; appearing in spring ; a native of Sierra Leone ; increased by cuttings ; grown in leaf mould, loam and sand. *Flore des Serres*, pl. 249. 1847.

We have recently noticed several of the splendid species of *Gardènia* which have been introduced ; and the present plant is another from the same source ; it has exquisite large pale buff flowers, with a very curiously formed stigma, which has somewhat the appearance of a bud ; the foliage is also handsome, deep green, and rich. It is a noble acquisition, and, with the *G. Stanleyàna* and *Devoniàna*, should be introduced into every fine collection of plants. Culture the same as for the other species. (*Flore des Serres*, July.)

Sir. W. J. Hooker remarks that the species described by Dr. Lindley as *G. Devoniàna* is the *Rândia longiflòra* of Salisbury.

38. SISYRI'NCHIUM LONGISTYLUM *Nob.* Long-styled Sisyrinchium. (*Iridacèæ.*)

A greenhouse bulb ; growing six or eight inches high ; with yellow flowers ; appearing in spring ; a native of Chili ; increased by offsets ; cultivated in loam, leaf mould, and sand. *Flore des Serres*, 1847, pl. 255

A very pretty species, with somewhat the appearance of an *Ixia* in its flowers, and the peculiar imbricated habit of the *Witsénia corymbòsa* in its foliage. It was introduced into the collection of Van Houtte in 1845, and, from its free blooming, handsome habit, and golden flowers, must prove one of the greatest ornaments of our gardens. It is a half-hardy perennial, and should be wintered in the cold house. Loam, leaf mould and sand make a suitable compost. It flowers freely. (*Flore des Serres*, Aug.)

39. *DIPLADENIA RO`SA-CAMPE`STRIS* *Nob.* The Rose-colored Field Dipladenia. (*Apocynaceæ.*)

A stove plant ; growing four to six feet high ; with rose-colored flowers ; appearing in spring ; a native of (?) increased by offsets or tubers : cultivated in leaf mould, peat, and sand. *Flore des Serres*, 1847. pl. 256.

The Dipladenias are beautiful climbing plants, adapted to stove culture, the greenhouse being scarcely warm enough to keep them in good health, growing a few feet high, and producing numerous bell-shaped flowers of various shades. The present species is especially beautiful, and has received the poetical name of the Rose des Champs. "Nothing can be more beautiful or more elegant in color, than the large flowers of this species, with their ample petals, of a soft rose, satiny beneath, and spotted in the centre with deep rose." The leaves are opposite, oval, distinctly russeted, and velvety, and the flowers appear in clusters on the ends of the shoots. It is a very fine plant, and merits a place wherever there is a suitable one to bloom it well. (*Flore des Serres*, Aug.)

40. *DICE`NTRA SPECTA`BILIS* *Nob.* Elegant Dicentra. (*Fumariaceæ.*)

A hardy perennial ; with purple flowers : appearing in summer ; a native of China ; increased by division of the root ; cultivated in any good soil. *Flore des Serres*, 1847, pl. 258.

"Beyond all comparison the handsomest of all the Fumeworts which have been introduced. It was introduced to England by Mr. Fortune, who brought it home with him from China. In good health, its stems grow nearly two feet high, and have three or four axillary racemes of beautiful flowers, each raceme from four to six inches long. The flowers are full an inch long, and nearly three quarters of an inch wide. Mr. Fortune states that it is one of those plants of which the Chinese mandarins are passionately fond, and cultivate extensively in their small gardens. He found it in the Garden of the Grotto, (in Chusan,) growing on artificial rockwork with the beautiful *Weigelia rosea*. Its great resemblance is to the old *Fumaria formosa*, (now *Dicentra*,) but is far finer in every way. It is a very great acquisition, and, with the *Anemone japonica*, and other of Mr. Fortune's plants, will probably prove quite hardy. (*Flore des Serres*, Aug.)

41. *ACHIMENES CUPREATA* Hook. Coppery-leaved Achimenes.
(Gesneriaceæ.)

A greenhouse plant; growing two feet high; with scarlet flowers; appearing all summer; a native of New Grenada; increased by offsets and cuttings; cultivated in turfy peat, leaf mould, and sand. *Flore des Serres*, 1847, pl. 260.

A new and interesting species of this now quite extensive family, containing upwards of a dozen species. The leaves are of a dull, coppery hue above, and a rosy purple hue beneath, and the flowers, which are small, and of a rich scarlet, have a pretty effect upon the sombre-colored foliage. It was found in New Grenada, and the seeds sent to the Kew Garden in 1840, and the plants flowered in April last. It requires the same treatment as the other species, and, from the peculiar rambling habit of the plant, rooting, as it does, at every joint, and its bright flowers, it will be a desirable species. (*Flore des Serres*, Aug.)

42. *FORSYTHIA VIRIDISSIMA* Lindl. Dark-green leaved Forsythia. (Oleaceæ.)

A hardy shrub; growing six to ten feet high; with yellow flowers; appearing in spring; a native of China; increased by layers; cultivated in any good soil. *Flore des Serres*, 1847, pl. 261.

This is a new and beautiful shrub, brought home by Mr. Fortune, on his return from China, who has given the following account of it in the *Journal* of the London Horticultural Society:—"It is a deciduous shrub, with very dark green leaves, which are prettily serrated at the margin. It grows eight to ten feet high, in the north of China, and sheds its leaves in autumn. It then remains dormant, like any deciduous shrubs of Europe, but is remarkable for the number of large prominent buds which are scattered along the young stems produced the summer before. Early in spring, these buds, which are flower buds, gradually unfold themselves, and present a profusion of bright yellow blossoms all over the shrub, which is highly ornamental."

Mr. Fortune found it growing at Chusan, in the same garden with *Weigelia rosea* owned by a Chinese mandarin, and called the "Grotto Garden," by the English. It is a great favorite, and is grown in all the gardens of the rich in the north of China. He afterwards found it growing wild in the mountain of Chekiang, when he thought it even more ornamental, in its natural state among the hedges, than when cultivated in the fairy gardens of the mandarins.

M. Van Houtte states that "this remarkable plant is destined to be one of the greatest ornaments of our gardens, developing its flowers in the earliest days of spring, at the same period as *Chimonanthus fràgrans*, *Calycánthus flóridus*, *Pyrus japónica*, &c., among which its golden yellow flowers contrast very prettily, or in the middle of a cluster of ornamental trees and shrubs, either deciduous or evergreen." It is easily multiplied by cuttings or layers. (*Flore des Serres*, Aug.)

43. GLOXINIAS. Hybrid varieties.

1. Prince Camille de Rohan. 2. *Teichleri*. 3. Comtesse Leopoldine Thun. 4. Comtesse Inza Thun. 5. Comtesse Caroline Thun. *Flore des Serres*, 1847, pl. 268.

These are all exquisite hybrids of the gloxinia, surpassing, with the exception of *G. Cartóni*, any that have yet been raised. *G. Teichleri* we have already described, (p. 403.) No. 1, is similar to *Cartóni*; 3, white, with a claret centre; 4, white, with a blue centre, and 5, white, with crimson centre. M. Van Houtte has become the proprietor of these, which were raised by Mr. Joscht, gardener to the Comte Thun, of Bohemia, and they will soon find their way into collections.

MISCELLANEOUS INTELLIGENCE.

ART. I. General Notices.

Spring Bulbs.—Having made a selection from the bulbs advertised in a good catalogue, according to his tastes and pecuniary means, the amateur should immediately decide what to do with them. In their arrangement, reference should be constantly made to the season when they bloom, that the position in the garden may be chosen which is best adapted to their display. Many of them come in flower at a time when the whole garden is not readily accessible, especially if there is much grass. To place flowers in situations seldom visited, or which cannot be reached without getting damp in the feet, or without treading over gravel walks which recent frosts may have disturbed, would be a useless expenditure of time and money. The eye, therefore, should glance round the premises, and the bulbs be apportioned to those parts nearest the dwelling-house, which frosts and rains are least likely to make unapproachable.

By detailing his own practice, the writer conceives he may best promote the interests of his readers, and he will therefore tell what he means to do

in relation to his own garden in the department of bulb-planting. A road passes up to his house, bounded on one side by a lawn, within a foot of the edge of which are circular beds, about two feet across, and a yard distant from each other. These are now occupied with dahlias and scarlet pelargoniums alternately, and consequently may soon be expected to be vacant, and they are then destined to be occupied by bulbs. It is proposed to remove the soil to the depth of eight inches, and then to dig into the lower stratum a good quantity of leaf-mould and road-grit, which has previously been mixed together, and, for the greater part of the past year, has been in a decomposed state. This being well incorporated with the soil of the beds, the surface of each must be smoothed, and the bulbs placed upon it, a little pressure being used with each, to settle the disturbed mould, which would otherwise be too hollow. Round the bed put two rows of crocuses not more than one inch from each other; then six hyacinths spread equally over the remaining portion, filling up the vacant spaces with early tulips. Each bed of this size will thus contain about seventy-two crocuses, six hyacinths, and a dozen early tulips. The taste of each gardener can regulate the colors of these various kinds of flowers, as there is room for great diversity. The hyacinths may be all different, or mixed, or all alike in each bed; and the crocuses may be mixed, or of one kind. If a number of small beds are together, a good effect would be produced by having one color in a bed, the contrasts being furnished by the beds themselves. As there may be innumerable combinations of colors, each amateur can consult his own pleasure in the matter.

When the beds are thus filled, a little leaf mould and sand may be placed over them, and the soil taken out should then be carefully replaced, if of good quality; but, if it is gravelly and heavy, it had better be all removed at once, and a light friable loam be put instead of it. All is then completed, and we must wait till spring does its work, and brings the flowers above the soil. The crocuses will appear first, then the tulips, then the hyacinths, keeping up a succession from February to May. By the beginning of June, all will be ready for removal, to make way for summer flowers. The interest attached to such beds will be very great indeed, fully repaying the cultivator for all his expense and toil, and giving a beauty of no common kind to the garden at a season generally deficient of flowers.

Of course, the gardener can place his bulbs where he pleases; and this illustration is only given as a general guide. The principles of management will apply in every case, an adaptation being adopted according to the size and position of the grounds.—(*Gard. Chron.* 1847, p. 637.)

Bulbs in Pots.—A correspondent of the *Chronicle* requests some information respecting the growth of bulbs in pots, in the practice of which he confesses he has himself failed. The subject was glanced at in an article on hyacinths, in No. 36 of this paper, to which the reader is again referred. However, as the subject is capable of being more minutely treated, and is extremely interesting at this season, we shall endeavor to give those explicit details which will satisfy the inquiries of the least instructed in these matters. In these papers we write for the tyro and not for the advanced gardener, and therefore repetitions must occasionally be excused.

Whether bulbs will flower well or not depends more upon their previous culture than on that which can be given them in pots, or in the ground ; since it is not the process of formation which we further by our care, but that of development. Before a pelargonium cutting can become a bushy plant, its branches must be made, for, although the rudimentary principles of a tree are certainly contained in a seed, yet the parts are not formed, and do not exist even in miniature at that early period. With bulbs it is different, for they do contain in embryo all the parts of the future plant and flower, so that their successful growth depends more on their healthiness and strength at the time of planting, than on any subsequent culture. Hence it follows that good bulbs must be planted, or fine flowers will never be the result of the greatest skill and attention. Firmness and weight are therefore to be considered in choosing bulbs, even more than size ; for a large bulb, if spongy, will never be so flourishing as a smaller one which is compact and firm. Select fine, well-developed bulbs, in which a large quantity of healthy secretions has been treasured up during the previous season of growth, and then they will flower well in spite of poor soil and bad potting. This is proved by the fine flowers produced by hyacinths in water. Good soil is therefore to be regarded as more important for the future well-being of the plant than for its beauty at the present season ; and, as most amateurs regard more the production of fine flowers now, than the future increase of their stock, a well-grown, compact formation is indispensable.

If these remarks are correct, it follows that the size of the pot is not of much importance in flowering bulbs ; and this suggestion of theory we have found correct in a rather extensive practice. We have flowered hyacinths and early tulips in the smallest pots, and they have been as fine as when grown in vehicles four times as large. We recommend 3-inch pots for hyacinths—those which are deep rather than wide. This sized pot is elegant, and has the advantage of taking up little room. More water will be demanded in proportion as less soil is allowed to the roots, but this is a matter easily regulated. For tulips, when planted singly, the same size pot may be employed ; but a good effect is produced by three or four in a pot, and then it must be larger. Crocuses, we find, do best about ten together in 5-inch pots. But no rule can be laid down in these matters ; every gardener must consult his own convenience, and the facilities he possesses.

Good drainage is absolutely necessary, for all bulbs are injured by wet lodging around and under them, although a percolating moisture does them good, as they bloom naturally in the wet season of the year. A few crocks should, therefore, be placed carefully at the bottom of the pot ; and the soil should be light and sandy. The directions which have been given repeatedly in the *Chronicle*, respecting gradually admitting moisture to bulbs, must be well attended to : and, for this reason, no water need be applied at the time of planting. If the soil is moderately moist, that will answer every purpose for some weeks to come. Place your pots against a wall, on a bed of coal-ashes, to prevent the ingress of worms, and then cover them six inches deep with leaf mould or loam. This heap may have all the rain,

and in a few weeks the roots, protruding through the hole of the pot, will show that forcing may safely be carried on.—(*Ib.* p. 652.)

Glazing.—About three years ago, a correspondent recommended the glazing of lights, by placing the glass edge to edge; and, having had some experience of the evils attending the lap and lead system, I immediately foresaw the value of the plan, provided the joints could be made water-tight. I had, therefore, a few sashes made for experiment; they answered admirably, and I have not had any more made on the old plan, nor do I intend having any. They stood last winter (a fair one for a trial) without letting the least water through, or chipping at the edges, as was supposed; and I strongly recommend the plan. The sashes are easier to glaze, admit more light, and their weight is lessened. I should be glad to find a substitute for putty; and, if your correspondent, who some time ago recommended marine glue, has tried it, and would favor your readers with some account of his experience as to how it has stood the weather, and the best manner of using it, he will oblige—J. L.—(*Ib.* p. 653)

The Management of Hawthorn Hedges, in my opinion, has been, and is now much misunderstood; but, be that as it may, I will give you some account of my mode of managing them in the different stages of their growth. I will begin with an old hedge, which is thick at the top and thin at the bottom, and which is stopped with thorns. In the first place, I remove all the old stoppings or mendings, and, if I have no other use for them, commit them to the flames; I then commence at the back side of the hedge, (that is, the side most out of sight, so as not to disfigure the front, if possible,) at one end, and take out one of the plants. I choose one as young as possible, which I lay near the ground and close to the bottom of the hedge; I then, according to the length of the first, take another thorn, plant about the middle of that just laid down, and lay that on the top of the former, which of course reaches beyond it, then a third, and so on, going backwards to the end; by this means, they generally keep each other down; but sometimes a tie is wanted, seldom a crook, to keep them down. With young hedges, I always like to have the ground well worked before I begin to plant; I prefer a single row of plants four inches apart, but perhaps six would do as well. I prefer nursery plants, which I trim a little at the roots, but not at the top; I plant as shallow as possible, just covering the roots; I consider from one foot and a half to two feet the best size for the plants. If it should be very dry in March and April, I approve of giving a good watering, and, if the summer is very dry, perhaps a slight mulching, and this concludes my first year's operation, except weeding occasionally, which I generally do with the Dutch hoe. In the second spring after planting, I take the first plant at one end of the hedge, and lay it down in the direction of the other end, then the third plant, fifth, and so on to the end; I then begin at the other side of the hedge, and lay as before in the contrary direction, so as to make the plants cross one another. About midsummer, I take a pair of shears, and clip the sides and top a little, leaving one shoot in about every two

feet; this I let grow to the length of three feet; then I lay these over the first laying. I then let the young hedge grow so as to fit itself for cutting into the desired shape, which should slope from the ground to the top like a wedge.—(*Ib.* p. 654.)

Flower Forcing.—Those who intend to provide a rich display very early in the spring, should now be in the market, and select things adapted for the purpose, of a superior character as to amount of flower-buds, and form of the plant. These things involve, of course, some little expense, but such is amply repaid where a proper forcing structure is provided. It cannot be expected that gardeners, as they are ordinarily situated, can provide all things necessary for this purpose so well as the nurserymen, whose sole business it is to look after things of the kind. As one important division of good forcers, we would recommend the ordinary American shrubs, many of which, although too large for the drawing-room stand, are admirably adapted for the vestibule or balcony, or for placing in conspicuous stations in the conservatory or mixed greenhouse. Of such are the various *Rhododendrons*, *Azaleas* of the *nudiflora* class, with various hybrids; the *Rhodora canadense*; *Ledum latifolium* and *thymifolium*; *Kalmia latifolia*, *angustifolia*, and *glauca*; *Andromeda pulverulenta*; the *Daphnes*, especially *Cneorum*, and even the old *Polygala Chamæbuxus*. These, with more of the same tribes, although not of very recent introduction, will be found to add greatly to the spring display, as also to the diffusion of a most gratifying fragrance. Such should be obtained forthwith, potted in smallish pots, and plunged in the warmest corner of the garden, from whence they may be successively introduced to the forcing-house, from the middle of November until February. Such, if gradually cooled down when out of blossom, may be turned out into a reserve garden of bog earth in April, and will not unfrequently force very well the next season. When too large for pots, they will come in for the decoration of the shrubbery, so that little loss will be incurred.—(*Ib.* p. 639.)

Cultivation of Raspberries.—A few words on the cultivation of this favorite fruit may be useful at this season, when the old beds require care, and new plantations should be made. The raspberry will bear fruit with almost any treatment, and this is the reason its culture is so often neglected. Odd corners of the garden, and shaded situations where nothing else will flourish, are often chosen, and a small crude fruit is the result. Like every other garden production, the raspberry knows how to turn free air and warm suns to excellent account, and every available advantage of this kind should be given them.

In most gardens, we find this plant cultivated in compartments, in rows just wide enough apart to allow of a passage for gathering the fruit; but, too frequently, these alleys become a mass of entangled branches before the summer ends, thus preventing the comfortable taking of the crop, and keeping the young shoots from the sun and air. Now, in whatever way you plant your canes, let there be great distances between the clumps, wide enough in the rows to allow of other crops. If the rule is observed, never to have two rows of raspberries together, but to put them at distances suffi-

cient to allow of the growth of cabbages, turnips, celery, &c., every desirable end will be answered. In this case, the canes need not be far apart individually, and a greater as well as a finer produce will be secured.

In making new plantations, let the ground be trenched half a yard deep, and plenty of rotten manure be incorporated with the soil. This should be done a month or two before the time of planting, to allow of the settling of earth. As a general rule, raspberries planted this season should not be expected to bear fruit the next, as the object is to secure a vigorous growth of canes for another year. If you get your plants from a nursery with but little root to them, and probably very dry before you plant them, it will be necessary to nurse them well, in order to get any new shoots from them; and, if this year's stems are allowed to bear, you will probably have the fruit and nothing more for your pains, and have to fill up vacancies next year. You had better, therefore, cut down the stems to within a foot of the ground at the time of planting, and wait patiently till strong shoots next year repay you for your trouble.

But if you have a supply on your own ground, or can go yourself and see the plants taken up at a nursery near your garden, you may secure a crop next season without the risk of injuring your plantation afterwards. The writer has just planted out a quantity of the Fastolff raspberry, with the two objects of having fruit next season, and a permanent stock, and will detail his manipulations for the guidance of any who may have confidence enough in him to follow his example. In the first place, a hole was dug with a fork, about half a yard across, but not deep, the soil being only loosened by that instrument. With the same invaluable tool the plants were dug up from their old quarters, care being taken to have masses of root fibres adhering to them, and at least one strong bearing stem was inserted in each hole, surrounded by four or five smaller ones. The weak canes were cut nearly to the ground, but the strong were allowed about four feet, and from these the writer has no doubt abundance of fruit will be gathered, and, in most cases, shoots produced as well. The disturbance being small, and great care being taken in arranging and treading down the roots, the season also being early, it is concluded the canes will have no difficulty in progressing as well as they would have done in their former situation. This plan presupposes that you have an abundant stock of your own, or are not careful of expense, since more canes are required than would ordinarily be given to a new plantation.

Old beds should be now attended to. Cut off close or dig up all but three strong canes to each stake, and let them be firmly tied with some material strong enough to last a year. The thin top should be pruned down to a bud, leaving the canes strong and straight. Some rotten dung may then be forked in, care being taken not to injure the bunches of roots, which will be found in all directions.—(*Ib.* p. 668.)

Culture of La tanas in the open air.—For a long time, these charming shrubs have been kept in the hothouse, where they have been far from producing all the ornamental effects of which they are susceptible. Cultivated in the greenhouse later in the season, the umbels of flowers are much

more ample, more numerous, and brighter colored; and we would not place them in the stove only to hasten their flowering. We know of many amateur cultivators who have these plants in the form of a tree, from ten to twelve feet high, with round heads, studded in all parts with the clusters of flowers. So managed, these plants acquire an aspect and a charm inexpressible. But there is another mode in which, according to my mind, they may be made to acquire a form still more ornamental and picturesque; that is, planting them in the open ground in the open air, and in a good soil: this has been my practice for some years. My plants thus grow kindly, and form pyramids, which are literally covered from the bottom to the top with innumerable umbels of flowers, of the brightest color, and so agreeably changeable, as every one knows.

I set out the plants in their places about the middle of May, or as soon as all appearance of frost is over. I cut off, at this time, all the ill-shaped branches which injure the handsome form of the plants, and nip off the ends of the branches which are too vigorous: and I then plant in a light soil very rich in humus. When the autumn frosts arrive, the plants are all taken up and potted, cutting in all the exuberant roots. They are watered lightly, and placed in a good greenhouse temperature, in a dry and light situation, where they are left until they begin to grow again. I would remark that, by this mode, old and deformed plants may be rapidly improved, and, no matter how ill-shaped, be made to take a very handsome aspect.—(VAN HOUTTE, in *Flore des Serres*, Sept. 1847.)

ART. II. *Foreign Notices.*

FRANCE.

Exhibition of the Royal Horticultural Society of Paris, Sept. 22, 1847.—Those who have seen the shows in London or Ghent, or that of the Cercle Général held last spring in Paris, would be sadly disappointed with the exhibition of the Royal Society, which took place last week at the Orangery of the Luxembourg; the flowers were badly arranged—no taste whatever was shown in the grouping of the plants; for instance, China Asters were seen in different corners of the room, and even one collection, to which, by-the-bye, a prize was awarded, was left standing upon the floor during the whole time; added to this, it was impossible to find out to whom some collections belonged, or to whom prizes were awarded, for the officers of the Society had omitted, in many instances, this very necessary duty, even on the second day of the show; moreover, either from accident or design, one of the most splendid of autumn flowers, the Dahlia, was altogether omitted from the schedule of prizes. Among the general collections were here and there a few good specimen plants of *Veronica Lindleyana*, *Cuphea platycentra* and *miniata*, *Tillandsia acaulis*, *Pilocereus senilis*, *Æschynan-*

thus Paxtoni, Brugmansia Waymanii, Clerodendron Devoniense, and Anemone japonica, but there were many things quite unworthy of a place in any exhibition. As to Orchids there was scarcely a plant. Cut Roses were numerous and good; those in pots were just as they had been grown for market or private sale, in 4-inch pots; not one fine specimen could be seen. China Asters are now becoming quite a fashionable flower on the Continent, and several good collections were shown, among which were some beautiful varieties of good form, splendid color, perfectly double, and nearly as large as an ordinary Dahlia. The fruit was neither plentiful nor so fine as I have often seen it, but this is alone attributable to the cold miserable weather that has prevailed for some weeks past; there was but one small collection of Grapes, and those not ripe; as to Pines, two small Queens certainly not weighing more than 2 lbs. each, were the sole representatives of French culture. As the Roses attracted the greatest number of admirers, I cannot do better than give the names of some of the finest varieties:—Mr. Berger was awarded the 1st, or Grand Luxembourg Prize, for a large collection, among which I observed, *Tea-Scented*: Eugène Desgaches, Goubault, Adam, Eugenie Jovain, Devoniensis. *Isle de Bourbon*: Souvenir de la Malmaison, Béluze, Paul Joseph, Deuil du Duc d'Orleans, Madame Souchet, Reine des Isles Bourbon, Charles Souchet, Manteau de Jeanne d'Arc, Fafait, and Marechal de Villars. *China*: Clara Sylvain, Cels Multiflore, Virginale, Miellez, Triumphant, Carmin d'Yeble, and Darius. *Noisette*: Lamarque, Julie de Loynes, Solfaterre and Lamartine. *Hybrid Perpetual*: Aubernon, La Reine, Clémentine, Gèant des Batailles, and Acidalie. Mr. Verdier, prize for large collection, in which were many of the before named, together with the Goubert, Elise Sauvage, Don Carlos, Taglioni, Comte de Paris. *China*: Cramoisie superieure, Madame Breon, Joseph Deschiens. *Isle de Bourbon*: Proserpine, Cornice du Sene et Marne, Madam Nerard, Comte de Rambuteau, Henri Plantier, Leveson Gower, and Phœnix. *Hybrid Perpetual*: Fulgorie, Duchess of Sutherland, Rivers, Aubernon, and Prince Albert.

Messrs. René and Margottin had also a large and good collection, comprising the same varieties, but, for the reason before given, I know not if they obtained prizes. Mr. Modeste Guérin obtained the Grand Prize of the Duchess of Orleans, for Roses in pots. The plants were very small, in 4-inch pots, but tolerably well blown for the size. Among them were most of the established favorites, together with many of the new kinds of 1846. M. Jacquin Ainé obtained the 1st prize for Greenhouse Plants, comprising *Erica ventricosa*, mutabilis, capitata, pulchella, and versicolor; *Achines grandiflora*, multiflora, patens, picta, longiflora, and atrosanguinea; *Cuphea platycentra*, miniata, and strigulosa; *Statice Dickensonii*, *Fortunii*, and *purpurea*; *Torenia asiatica* and *scabra*; *Tillandsia acaulis*, green and brown; *Anemone japonica*, *Chirita sinensis*, *Bouvardia splendens*, *Jusucia violacea*, *Polygala mixta*, *Veronica Lindleyana*, *Russelia juncea*, and various other plants. M. Chauvière obtained the 2d prize for a Miscellaneous Collection, among which the most remarkable were *Clerodendron Devoniense*, *speciosissimum*, and *infortunatum*; *Æschynanthus Paxtoni*; *Cuphea*

platycentra and miniata; *Brugmansia Waymanii*, *Cassia corymbosa*, *Anemone japonica* and *vitifolia*, *Lilium lancifolium album*, *Statice arborea*, and *Torenia asiatica*. M. Michel had a prize for a small collection of Heaths, which were very good for the season; among them were *Lambertia versicolor*, *cupressina*, *speciosa*, *linea*, *varia*, *mammosa*, *rosea*, *verticillata*, *coccinea*, *echiiflora purpurea*, *Swainsonia*, *arbuscula*, *soufra*, *gracilis*, *erecta*, *blanda*, *Bowieana*, *glutinosa*, and *ventricosa*. M. Cels exhibited a fine specimen plant of *Cattleya-crispa*, with three or four spikes, covered with flowers. There were also two good plants of *Æschmea longifolia fulgens* and *Dichorizandra ovata*, but as no names were attached, I am ignorant as to whom they belonged; the same will also apply to some good grown plants in another part of the room, viz., *Nepenthes distillatoria*, *Cereus gladius*, nearly three feet high, *Echinopsis valida*, and *Mammillaria alvidens*. M. Bertrand was awarded a prize for a fine specimen plant of *Anemone japonica*, with nearly 100 flowers; he had also a fine specimen of *Cuphea platycentra*. M. Malingre was awarded a prize for China Asters, in pots, comprising some very fine flowers, in the different sections known here as German, English, and Russian. Messrs Jamin and Durand gained the 1st prize, or Grand Medal of the Princess Adelaide, for Fruit, consisting of nearly 150 varieties of Pears, and 15 or 20 varieties of Apples. The season has not been favorable; nevertheless, there were some very large specimens, especially among the Pears, such as *Duchesse d'Angoulême*, *Calebasse*, *Catillac*, *Bon Chrétien d'Espagne*, *Colmar d'Arembourg*, *Van Mons*, *Triomphe de Jodoigne*, *Doyenné doré*, *Belle de Berry*, *Fondante de Joffart*, *Beurré Spence*, *Fondante des Bois*, *Incomparable*, *Capiaumont*, *Noirchaire*, *d'Arembourg*, *Bosc*, *Passe Colmar*, and *Williams*. M. Dupuy Jamain was also awarded a prize for a large collection, but very little if at all inferior; in it were fine specimens of most of the above-named; together with some kinds not yet let out, viz., *Beurré Bretonneau*, *Bergamotte soldat*, and *Princesse Charlotte*; also the new Plums, *Drap d'Or d'Espéron*, large golden fruit, and *Reine Claude Monstreuse*, with *Mirabelle d'Octobre*, *Prune des Délices*, *Perdrigon violet*, and *Fellembourg*. M. Goulette exhibited some enormous Melons, cultivated in the open air; M. Vilmorin, some seedling Potatoes, among which I noticed one marked A., middle size, rose color, and very handsome. M. de Villeneuve exhibited a very good collection of Oranges and Lemons, the most remarkable being *Lumie du Commandeur* and *Doux*, *Perette de Florence*, *Limonnier Pomme d'Adam*, *Pouzin*, *Incomparable* and *Ferrari*, *Bigaradier d'Espagne* and *Bizarrerie*, *Limettier des Orfèvres*, *Cédratier de Rome et des Juifs*. M. Houebre gained a prize for a collection of Potatoes. Among the Vegetables was nothing worthy of notice, excepting three or four enormous Potirons and some Patates.—(*Ib.* p. 654.)

Burnt Earth for Roses, and the Mode of Preparation.—Earth may be burnt at any season of the year. It has been the custom here, for some years, on the decline of spring, when the operations of pruning, grafting, &c. are ended, instead of suffering the rough branches to lie about, presenting an untidy appearance, to collect them in a heap. A wall of turf,

about three feet high, of a semi-circular form, is then built round them. The branches are set on fire, and when about half burnt down, seed-weeds, and such rubbish as collects in every garden and will not readily decompose, are thrown on the top, and earth is gradually cast up as the fire breaks through.

During the first two or three days, great care is requisite to keep the pile on fire. Here is the point where many fail. They allow the flame to break through and expend itself before the heap is thoroughly kindled. Constant watching is necessary at this juncture. As the fire breaks through, a layer of bushes and weeds should be added, and then a layer of earth. Follow up this plan, and the fire will spread through the whole heap; and any amount of earth may be burnt, by continually adding to those places where the fire appears strongest. The soil burnt here is the stiffest loam that can be found within our limits, and which is rather of a clayey nature; also turf from the sides of ditches and ponds, in itself naturally sour and full of rank weeds.

Burnt earth has been found beneficial in every instance where applied. In black garden mould, rather wet, in which Peach-trees were disposed to sucker and canker, despite of the use of various manures, two or three annual dressings of it appear so to have altered the nature of the soil, that they now grow clean, vigorous, and healthy, are free from suckers, and produce roots completely matted with fibre. The like success has attended its application to various other trees.—(*Paul's Rose Garden, extract in Gardeners' Chronicle, 1847, p. 639.*)

Proper Manure for Roses.—That stable manure, which is excellent in most cases, and the kind in general use for Roses, is not of the best description for *light soils*. Its tendency is to render them still lighter; and if it can be dispensed with, we think it desirable to do so. Manures should be applied here in a more concentrated form. Cow-dung is excellent, especially for the tea-scented Roses; and pigeon-dung, rabbit-dung, and night-soil, are all great improvers of light soil. The unpleasantness attending the preparation and use of night-soil may in a great measure be done away with by pursuing the following plan:—A basin, or reservoir, should be formed on the ground, to hold a given quantity. In the bottom of this, loam may be thrown, heavy or light, turfy or not, as may be at our command, or whichever is thought best suited to the character of the soil we intend to manure. Upon this the night-soil is lowered from the cart, and a sufficient quantity of loam thrown in to absorb the whole. The heap should then be covered over closely with a layer of earth, about a foot thick, and remain closed for about six months. It may then be broken up, more or less, according to its state, mixing dry soil, or ashes, or *burnt earth* with it in the operation, and casting it up in ridges. About a month afterwards it may be turned over again, that the night-soil may be well mixed with the loam. In spring or autumn it may be carried to the places where required, and forked in as other manures; or it may be scattered over the beds immediately after they are forked in spring, when it will be washed down by the rains. We cannot conceive of any description of manure to

surpass this, applied in the latter manner, *to Roses on light soils*. By its use, we administer at the same time a cool and rich fertilizer, and a substance calculated to be of permanent benefit to the soil.—(*Ib.*)

Moss Roses suitable for Pillar Roses.—On such soils as I have just recommended, the varieties termed “vigorous” may be fashioned into “Pillar-Roses,” and they are indeed unique when cultivated in this manner. Some of our readers may perhaps doubt whether Moss Roses are suited for this purpose; and writers have too often spoken of them collectively as being of dwarf and delicate growth. What will such say to a pillar formed with the old red Moss reaching to the height of 15 feet? That such a one exists I can confidently assert; for I measured the plant last autumn in company with the owner, who assured me he could have trained it higher, but that he was unable to obtain poles to support it. It cannot be said that the pillar is well furnished with branches the whole height, but I feel confident that many varieties will form handsome, well-furnished pillars 6 or 8 feet high. Surely *much more* is not required. Ten feet is perhaps the maximum of height desirable even for a Pillar-Rose. Beyond this, not only are the best flowers out of sight, but there is infinite trouble in protecting the plants from the wind, in pruning, &c.

If the reader should wish to see the plant alluded to above, it is in the garden of Mr. Anderson, of Bull’s-cross, near Cheshunt, growing within a few feet of the road. When I inspected his Moss Roses last winter, some of the shoots of the previous year’s growth were above 6 feet long, and extremely robust, and the main stems had swelled to a considerable size. The mossy calyces were still hanging on the trees, showing there had been an abundance of flowers. There were several other plants of the Moss Rose formed as pillars, two or three of which were nearly equal in height to the one above-mentioned.

Now to what circumstances is this uncommon case due?—for uncommon I admit it to be. Is it owing to situation, soil, the age of the trees, or the fostering care of the cultivator? Partly, I should say, to all. The garden lies open to the sun; the situation is airy; the soil is a brownish loam, not exactly light, but friable, and containing a good share of vegetable matter;—a soil in which Wallflowers and Fuchsias vie with Roses in vigor. The ages of the largest Rose-trees are probably from 12 to 20 years.—(*Ib.*)

Bones as Manure, and their Use in the Culture of Pelargoniums.—The researches of the chemist and the practical testimony of the farmer having more fully established the value of bones as a manure, not for Turnips only, but for various other crops, it behoves us to ascertain whether they have been employed in gardening as extensively as they deserve. If we find they have not, we ought to lose no time in making use of them. The greatest obstacle to the more general use of bones in gardening, as well as in farming, is their undergoing decomposition so very slowly. But this difficulty is got over by dissolving them in sulphuric or muriatic acid. This plan, however, though excellent as far as Turnip culture is concerned, must be defective, inasmuch as it confers no lasting or permanent benefit on

the land. Professor Way prefers using two parts of the bones undissolved, on the principle of their more continued and permanent benefit. I would, however, very particularly direct attention to a sort of bone manure not in general use (perhaps owing to its limited supply), which, being very fine, requires no digesting with sulphuric or muriatic acid, and which is both immediate and permanent in its effects. This bone manure is the sawdust of a button factory. When I lived, in 1839, at Leigh-court, in Somersetshire, the late P. J. Miles, Esq., had, from a button factory in Bristol, a large quantity of this dust for his Turnips, and its effects were astonishing. The progress of the plant after the first shower of rain, was extraordinary; so great, indeed, that it induced Mr. Hatch (who was then gardener there,) to try it on many things in the garden, and with favorable results. Among other things he tried it on Pine plants, and the effects produced were wonderful. In 1842, Mr. Spencer, gardener at Bowood, used this same bone-dust for Pelargoniums, and with good results. The roots that were emitted into the soil containing the bone-dust, were as large as moderate-sized goose-quills; and the plants, in consequence of their having such strong and vigorous roots—powerful absorbents of food—grew to a size almost incredible. And not only were they large, but they were strong and vigorous enough to support their trusses without the aid of sticks, although many of the trusses consisted of 12, 13, and 14 flowers each. The plants had only a few sticks at the commencement of their growth, merely to keep the branches at regular distances from each other. The flowers were half as large again as usual. I well remember Mr. Brown, late of Slough Nursery, who happened to call at Bowood while the Pelargoniums were in bloom, expressing his surprise at the number of flowers on each truss, the size of the flowers, and at the vigor of the plants: he added that he never in his life saw any thing like them. Some of these plants kept up a succession of flower from four to six months. A few that were “spotted” were put in soil containing the bone-dust, and in 10 days, they had put on so many young leaves as to completely hide the “spotted” ones. This dust was purchased cheap at the factory in Bristol in 1839, but its value being soon ascertained, in 1842 the price was more than doubled, and the dust inferior. I do not know what quantity of dust is to be had annually in this country, but this I do know, that if we could reduce our bone manure to the finely divided state of this dust, we should then have a most valuable fertilizer without additional labor or expense.—(*Ib.* p. 637.)

Root-Pruning Fruit Trees.—We have, from time to time, placed before our readers, the best information on the subject of Root-Pruning, believing the practice in many cases to be of great value. We therefore with pleasure copy the following additional evidence of the success attending root-pruned trees.—*Ed.*

The question of root-pruning fruit trees is one of decided importance, not to gardeners alone, but to a vast number of amateurs and private persons, whose small plots of ground are too frequently encumbered with unfruitful trees—spared only from year to year under a hope that they will ultimately be-

come productive. More especially is this the case with pears and apples, when planted either upon walls or as espaliers: it is generally in these situations where root-pruning is found peculiarly effective and valuable. We are not surprised that the subject should attract the attention of our readers. Two communications treating on this matter will be found in another part of the paper. By one of these we are supplied with what appears to us the most conclusive evidence in favor of root-pruning that the most sceptical can require. We therefore refer such of our readers as may be in any way concerned in this matter, to Mr. Drewett's article, given elsewhere. We insert below a descriptive notice of a sample of fruit sent to us by Mr. Drewett, being pears, and the produce of root-pruned trees. They were clear, handsome fruit, and the subjoined dimensions correspond to the several sorts, measured by us at the time they were received. The circumference of each fruit was taken round the thickest part, and the length, from the base of the stalk to the eye:—

Beurré Diel, circum. $9\frac{1}{2}$ in., length 5 in.

Brown Beurré, circum. $9\frac{1}{4}$ in., length $4\frac{1}{2}$ in.

Inconnue Cramoisine, circum. 8 in., length 4 in.

Glout Morceau, circum. $7\frac{1}{2}$ in., length 4 in.

Passe Colmar, circum. $7\frac{1}{2}$ in., length $4\frac{1}{2}$ in.

Swan Egg, circum. $8\frac{1}{2}$ in., length 4 in.

Chaumontel, circum. 8 in., length $5\frac{1}{4}$ in.

Navarre Beurré, circum. $7\frac{1}{4}$ in., length $3\frac{3}{4}$ in.

Nothing could exceed the clear and healthy appearance of the fruit. The result, as detailed by Mr. Drewett, is most successful; it is not, however, other than a most reasonable and natural one. It is merely what, we venture to assert, will be the result with pears and apples in ninety-nine cases in every hundred, where similar experiments are fairly made; such are the effects which our own experience, at least, would lead us to expect. As we cannot expect that our own opinions upon any question are to be implicitly received by all, however corroborated by the evidence of others, we therefore earnestly invite the consideration of our practical readers to this practical question. A little discussion on so important a matter would necessarily lead persons to thought and experiment, and this would tend greatly to a better understanding of cause and effect in reference to the matter at issue.—(*Gard. Journal*, 1847, p. 243.)

Experiment on Root-pruning Pear Trees.—I beg to furnish you with a statement relative to a successful experiment I have made on some pear trees at this place, growing on a wall fourteen feet high, and about sixty yards in length. The sorts are for dessert. Having been previously informed that the trees were never known to produce any thing like a crop, I was resolved to make some alteration in them; and in Oct. 1813, I tried an experiment on them in root-pruning. I had a trench dug out the whole length, about four feet from the wall, and three feet deep, when I undermined them, until I could have full scope for severing all those roots which had a tendency to go downwards; those I found rather numerous. I had them pruned with great care, and as the soil was removed, I continued to

raise them nearer the surface, from their cold abiding place. Having provided myself with a good stock of loam, I supplied the roots with a liberal share of it, and by the time the trench was nearly filled up again, the points of any of the side roots were brought near the top.

The first season following, the trees made very little progress. The second year after they were pruned and nailed, I made three incisions with a knife down the whole length of the stems, as they appeared to be what persons in the profession term *hide-bound*. As the season advanced, the trees began to make up for the rest of the previous season, sending forth fine healthy shoots, which I allowed to remain on the trees until the autumn, not even stopping them. The third season a great improvement appeared to be going on, both in forming healthy shoots, and forming fruit buds. The shoots I allowed to remain their full length, until the wood was ripe, the same as before.

I have great pleasure in being able to state, that the trees this season have produced a splendid crop of fruit, and fine in quality. I gathered, a few days ago, from one half-standard, which does not extend more than fifteen feet wide, 228 fine pears, fit for table, when ripe; and from another tree (*Beurré Diel*) which only extends to nine feet wide, eighty-six fruit was gathered: some of them weighed ten ounces each.—(*Ib.* p. 245.)

ART. III. *Domestic Notices.*

Colmar d'Aremberg Pear.—We have fruited this beautiful variety the past season in our collection, one of the pears being quite large; but some of the most remarkable specimens were sent to us by N. Stetson, Esq., of Bridgewater, whose garden we lately noticed, (p. 441.) One of these weighed *fourteen and a half ounces*, and measured *four and a half inches* long: and they were produced on a small espalier tree only planted two years. The great size, early bearing and productiveness, as well as great excellence of this pear, will render it indispensable in every choice collection. It ripens at a good season, about the first of November, just after Swan's Orange, and keeps up the succession of fine *large* pears.—*Ed.*

Rhode Island Horticultural Society.—This new association held its second annual exhibition at Providence on the 29th and 30th of September. The display of fruit, particularly of apples, was exceedingly fine; among the pears, some new sorts were exhibited, and there were also fine specimens of the Pratt, Capsheaf, Buffum, Knight's Seedling, and other R. I. varieties. The Westcott, a variety recently brought to notice, is said to be excellent. The report has been received, and we shall notice it in our next number.—*Ed.*

The Boston Pine Strawberry.—Your Boston Pine Strawberry, (of which you may recollect I obtained just a dozen plants of you two years ago this autumn,) has done well with me. I did not expect, as a *stominate* kind, that it would equal your seedling, but it has come up fully to my expecta-

tions, and I know of no variety that I would prefer, to cultivate *with that*, for a very abundant crop ; although I have the Early Scarlet, Iowa, Bath, and others, which I have used for that purpose : the staminate, you know, are all noted for their strong growth and rapid increase, but your pine, I think, exceeds all others in this respect ; certainly all that I have cultivated. Of the twelve vines procured of you, as I have remarked, in the fall of 1845, I gave four to a friend going west early in the following spring. This left me but eight to start with, and yet these eight gave me, as I believe, from fifteen hundred to two thousand plants at the close of the season, and from these were picked very little, if any, short of a bushel of fruit the past summer.—*Your very ob't servant, D. W. Coit, Norwich, Conn., Oct. 1847.*

First Annual Exhibition of the Albany and Rensselaer Horticultural Society.—The first annual exhibition of this Society was held at the State Geological Rooms, in Albany, on Saturday, September 11th, 1847, and a full report has been sent, which, as heretofore, we must condense for want of room :—

“It is not yet six months since the society was formed ; and, of course, no opportunity has been afforded for increasing the varieties, or extending the cultivation of the various articles exhibited, and yet the show of fruit, flowers, and vegetables astonished and delighted every beholder. A more beautiful, a more extensive horticultural exhibition has seldom or ever been witnessed in this State.

The undersigned begs to congratulate the friends and supporters of the society upon the entire success of this, their first annual exhibition ; and trusts that this satisfactory and encouraging result will induce them to further and continued exertions for the prosperity and welfare of the society.

FRUITS : The Committee on Fruits report that there were exhibited by R. H. Vail, of Ida farm, Troy, eleven varieties of apples, viz., Holland Pippin, Early Tart Bough, Heart's Pippin, Jersey Sweeting, Early Sweet Bough, Spitzemberg R. I. Greening, Domine, Vandervere, Swaar, and one variety not named ; three varieties of pears, viz., Bartlett, Beurré Rance, and Catillac ; seven varieties of plums, viz., Coe's Golden Drop, Flushing Gage, Reine Claude, Yellow Egg, Imperial Gage, Yellow Gage, and a seedling of a fair character ; one variety of the peach, the Red Magdalen ; and three varieties of grapes, viz., Isabella, Winne, and a native Blue variety.

By D. Benson, of Albany, Beurré Diel pears, Washington, Royal Purple and Nectarine plums, and a very fine variety of seedling peach. By Wm. Newcomb, three varieties of watermelons and three of muskmelons. By E. P. Prentice, of Mount Hope, Albany, very beautiful specimens of Bergen Yellow peaches, one variety of watermelon, and one variety of muskmelon. By John Gott, of Albany, a limb bearing thirty beautiful peaches, not named, and two varieties of plums, Green Gage, and a seedling variety.

By Stephen E. Warren, of Troy, seven varieties of peaches, viz., Noblesse, Royal George, Patroon, Sweetwater, Lemon Cling, Red Magdalen, and a seedling ; three varieties of Nectarines, viz., Perkins seedling,

Red Roman, and one variety not labelled. By Bradford R. Wood, of Albany, five varieties of plums, viz., Red Magnum Bonum, Sweet Gage, Green Gage, Washington, and beautiful Rareripe peaches. By Wm. Buswell, of Troy, Coolidge's Favorite peach, Washington plum, and a seedling plum. By B. B. Kirtland, Hawthornden apples and Netted muskmelons. By J. McD. M'Intyre, of Albany, Egg plums, and one variety of apple not named. By Dr. Jas. McNaughton of Albany, Rareripe and Morris White peaches, very fine. By V. P. Douw of Greenbush, Beurré Diel pears, Royal Blue plum, a seedling Green plum, a seedling Yellow plum, Miller's Burgundy grapes, and four varieties of watermelons, viz., Black Spanish, Joppa, Rio Janeiro, and Mountain Spanish, and Netted muskmelons.

By Joel Rathbone, Kenwood, Albany County, Green Gage and Blue Gage plums, Royal George, Sweetwater, and Morris White peaches, Seckel pears, Catawba and Isabella grapes, Newington nectarines, Rock Nutmeg watermelons, and large Long Island watermelons. By Isaac Deniston of Albany, twenty-seven varieties of plums, viz.: Bleeker Gage, Yellow Gage, Deniston's Superb, Reine Claude, Columbia, Albany Beauty, Eleanor, Yellow Egg, Lawrence's Favorite, Chancellor Gage, Deniston's Red, Bleeker's Red, Blue Gage, Buel's Favorite, Green Gage, Washington, Mirabelle, and ten seedlings not named.

By Amos Briggs, of Schaghticoke, Rensselaer county, sixteen varieties of plums, viz.: Nectarine Plum, Orange, Orleans, Prince's Yellow Gage, Reine Claude, Coe's Golden Drop, Blue Gage, French Red Gage, Imperial Gage, Washington, Yellow Gage, Purple Magnum Bonum, and four seedlings of fine appearance, but not of first quality; Bartlett pears, Seckel pears, and one variety unnamed, and apples, not labelled. one variety. By James Wilson, of Albany, six varieties of pears, viz.: Althorpe Crassane, Doyenné Gris, Doyenné White, Beurré Capiaumont, Henry the Fourth, and Lewis; Reinette Van Mons apple; Bleeker's Red, St. Catherine, Wheat and Judson plums, and May's Victoria currants. By John Taylor, of Albany, two varieties of apples, not labelled; Sweetwater and French Cluster grapes.

By James Coates, Red Magnum Bonum plums, Quackenbush plums, Alexander apples, and two varieties of watermelons. By L. Menand, White Alpine strawberries. By J. K. Paige, of Albany, six varieties of pears, viz., Seckel, Bartlett, and four varieties not named; five varieties of peaches, sixteen varieties of grapes, thirteen varieties of plums, and Valparaiso watermelons. By Dr. A. March, of Albany, very beautiful specimens of Red Magnum Bonum and Yellow Egg plums.

By Dr. Herman Wendell, of Albany, nineteen varieties of pears, viz., Duchesse d'Angouleme, Seckel, Gansell's Bergamot, Napoleon, Beurré Knox, Muscadine, Easter Beurré, Beurré Diel, Bartlett, Doyenné White, Leon le Clerc of Van Mons, Comte de Lamy, Fulton, Summer St. Germain, Chaumontelle, Duchesse de Mars, and three varieties unnamed; twenty varieties of apples, viz.: Newtown Pippin Green, Rambo, Baldwin, Esopus Spitzemburg, Yellow Newtown Pippin, Male Carle, Lady Apple, Gloria Mundi, or Ox Apple, Gravenstein, Lemon Pippin, Golden Sweet, Fall Pippin, Vandervere, R. I. Greening, Hawthornden, Ribstone Pippin,

Seek-No-Further, Siberian Crab, and two varieties not named ; twenty-five varieties of plums, viz. : Coe's Golden Drop, Coe's Late Red, Yellow Egg, Red Magnum Bonum, White Perdrigon, Virgin, Peters's Large Yellow, Prune d'Agen, White Magnum Bonum, Lombard, or Bleeker's Red, Long Scarlet, Catherine plum, American Wheat plum, Bleeker's Gage, Schuyler's Gage, Washington Yellow Gage, Blue Gage, Nectarine, Reine Claude, Imperial Gage, Holland plum, two English varieties, labels lost, and one seedling from the Lombard, resembling that variety ; Golden Chas-selas, Bland's Virginia and Isabella grapes ; Red Roman nectarines ; six varieties of peaches, viz. : Early Anne, Early Tillotson, Emperor of Russia, and three seedlings ; Black Spanish and Valparaiso watermelons, and five varieties of muskmelons, viz. : Beechwood, Sweet Ispahan, Christiana, Green Citron, and Yellow Early canteloup. By John Townsend, of Albany, five varieties of apples not named.

PREMIUMS.—The Committee have awarded the premiums as follows :—

Apples.—For the best exhibition, to Dr. Herman Wendell, of Albany, \$3.

For the second best exhibition, to Henry Vail, of Ida Farm, Troy, \$2.

Pears.—For the best exhibition, to Dr. Herman Wendell, \$3.

For the second best exhibition, to James Wilson, of Albany, \$2.

Plums.—For the best exhibition, to Isaac Denniston, of Albany, \$3

For the second best exhibition, to Dr. Herman Wendell, \$2.

Peaches.—For the best exhibition, to Stephen E. Warren, of Troy, \$3.

For the second best exhibition, to John Keys Paige, of Grapland, Albany, \$2.

Grapes.—For the best exhibition of native grapes, to Henry Vail, \$3.

For best specimen and greatest variety of foreign grapes, to John K. Paige, of Albany, \$3.

Nectarines.—For the best exhibition, to Stephen E. Warren, \$3.

Watermelons.—For the best specimens, to V. P. Douw, of Greenbush, \$2.

For the second best specimens, to Joel Rathbone, of Kenwood, Albany, \$1.

Muskmelons.—For the best specimens, to Dr. Herman Wendell, \$2.

For the second best specimens, to V. P. Douw, \$1.

The Committee beg leave to notice favorably, and as the best specimens of the particular varieties named, some Coe's Golden Drop and Nectarine plums exhibited by Mr. Amos Briggs, of Schaghticoke ; and some very large and beautiful Bergen Yellow peaches exhibited by E. P. Prentice, of Mount Hope, Albany County ; also a few beautiful specimens of apples, peaches, plums, and a very beautiful new seedling pear called the Sterling pear, exhibited by Messrs. Wilson, Thorburn & Teller, from their nursery.—*V. P. Douw, Chairman.*

Floral Designs, Vase Bouquets, &c.—The Committee on Floral Designs, Bouquets, &c. report that there were presented for exhibition more than twenty designs, bouquets, &c., nearly all of which were very beautiful, and reflected great credit for skill and taste on the part of the exhibitor.

Messrs. Dingwall, of Watervliet, Henry Vail, of Troy, Joel Rathbone, Mrs. D. T. Vail, Mrs. C. H. Merriut, Troy, Dr. H. Wendell, L. Menand, and Mr. Wilson were the principal exhibitors.

L. Menand exhibited a very splendid oval-shaped floral ornament for a dinner table, arranged in a china basket with great taste and skill, composed of the choicest and rarest greenhouse flowers, to which the Committee awarded a premium of \$3.

Mr. Dingwall exhibited a pair of beautifully arranged vase bouquets, composed of choice flowers, to which the premium is awarded of \$3.

Mr. Wilson exhibited a pair of flat mantel bouquets, arranged tastefully with choice flowers, to which the premium is awarded of \$2.

Mrs. Chas. H. Merriut, of Troy, exhibited a basket bouquet most beautifully arranged with rare flowers, to which the premium is awarded of \$2.

Mr. Wilson exhibited an exquisitely designed pair of bouquets, one flat and one round, composed of the choicest and rarest flowers, and arranged with consummate skill, to which the first premium is awarded of \$2.

Mr. Menand also presented a beautifully arranged pair, designed with his usual *pure taste and great skill*, to which the second premium is awarded of \$1.

All of which is respectfully submitted.—*Herman Wendell, Chairman.*

Greenhouse Plants and Flowers.—There was an exceedingly fine show of plants and flowers from Dr. H. Wendell, James Wilson, Henry Vail, J. Dingwall, and Wm. Newcomb. Dr. Wendell exhibited many new and fine plants, among which were twenty-five varieties of verbenas, including six seedlings; also, Susette, Polkii, Eclipse, Caroline, Dove-eye, Roseum, Rosy Cluster, Monk's Purple, Dwarf White, and others of newer varieties; eighteen varieties of new and beautiful phloxes, most of them never exhibited before this society, viz.:—Charles, rosea superba, Nymphæa alba, Auguste, Grandissima nova, Princess Marianne, decussata alba, Mazeppa, Fleur de Marie, Almerine, Breckii, Lawrenceia, Eclipse, Dodonæa, Annais Chauviere, Norfolkii, and two seedlings.

PREMIUMS.—The Committee have awarded the premiums as follows:—

For the best exhibition of greenhouse plants, to L. Menand of Watervliet, \$3.

For the best exhibition of dahlias, to James Wilson, of Albany, \$3.

For the best twelve dissimilar blooms, to James Wilson, \$2.

For the second best twelve dissimilar blooms, to Henry Vail, of Troy, \$1.

For the best six varieties of roses, to James Wilson, \$2.

For the second best six varieties of roses, to Dr. Herman Wendell, \$1.

For the best six varieties of phloxes, to Dr. Herman Wendell, \$2.

For the second best six varieties of phloxes, to James Wilson, \$1.

For the best seedling phlox, to James Wilson, \$1.

For the best display of German asters, to Mr. Newcomb, of Pittstown, \$2.

For the second best display of German asters, to Mr. James Wilson, \$1.

For the most extensive and best exhibition of verbenas, to J. Dingwall, of Watervliet, \$2.

For the second most extensive and best exhibition of verbenas, to James Wilson, \$1.

For the best seedling verbenas, to J. Dingwall, \$1.

For twelve seedling dahlias, a discretionary premium to Mr. Newcomb, \$2.

This being the time to award premiums for the season, the Committee award, for the best and most extensive exhibitions of annual, biennial, and perennial flowers during the season, to Mr. Newcomb, \$3.

For the best and greatest display of phloxes during the season, to Dr. Herman Wendell, \$2.

The Committee beg leave to notice with commendation a large and beautiful exhibition of new and rare, as well as splendid, dahlias sent to the exhibition by J. M. Thorburn & Co., of New York, for which they return the thanks of the society to Messrs. T & Co.—*Wm. Newcomb, Chairman.*

VEGETABLES.—According to the report, a great variety and fine specimens were exhibited, and the following is the report of the Committee awarding premiums:—

PREMIUMS.—The Committee have awarded the premiums as follows:—

For the best six squashes, to E. P. Prentice, of Mount Hope, \$2.

For the best twelve blood beets, to V. P. Douw, \$2.

For the best twelve carrots, to Joel Rathbone, \$2.

For the best twelve parsnips, to E. P. Prentice, \$2.

For the best twelve roots of salsify, to Henry Vail, \$2.

For the best pair of egg plants, to Joel Rathbone, \$2.

For the best six heads of cabbage, to Dr. Herman Wendell, \$2.

For the best six heads of red cabbage, to E. P. Prentice, \$2.

For the best three heads of broccoli, to V. P. Douw, \$2.

For the best half peck of tomatoes, to Joel Rathbone, \$2.

For the best six heads of celery, to T. Roeslie, of Albany, \$2.

For the best half dozen martinias, to Wm. Newcomb, \$2.

For the best display of vegetables, to E. P. Prentice, \$3.

All of which is respectfully submitted.—*B. B. Kirtland, Chairman.*

ART. IV. *Massachusetts Horticultural Society.*

Saturday, September 25th.—A meeting of the Fruit Committee was held to-day, at which several of the delegates of other societies were invited to attend, to taste some of the different fruits exhibited; and the following is a brief report of such as appeared to us worthy of note:—

APPLES.—An apple found in the woods in the town of Dracut, of fine appearance, good size, and pleasant flavor. From Mr. P. Smith, Groton, apples grown upon the farm of Rufus Morris, called the Funtling, fine

flavor and handsome. From Barton Whipple of Cumberland, R. I., Hollow Crown, presented by S. H. Smith, President of the R. I. Horticultural Society, of fine flavor, decidedly first-rate.

PEARS.—From Dr. Stevens, of Astoria, N. Y., Rapelje, a second-rate fruit. From J. Stickney, and also from M. P. Wilder, Dunmore, rather acid, and not equal to its English character. From C. Newhall, and F. W. Macondry, Washington, fine. From O. Johnson, Lynn, Johannot, fine. From Dr. Ives, of New Haven, Seedling No. 1, a small but good fruit. From Dr. J. B. Chapin, Providence, a pear supposed to be identical with the Doyenné Boussock, specimen premature, and not quite equal to those tasted last year. From R. Manning, Henkel, very juicy. From M. P. Wilder, Libérale, fair quality. From Dr. J. B. Chapin, Capsheaf, second rate. From Col. Carr, Chapman; the specimens were not in good order, but the Committee consider this a fruit of high flavor. From D. Wilbur, Hull and Early Wilbur, both fine.

October 2d.—The stated quarterly meeting of the Society was held to-day, —the President in the chair.

The Annual Election took place to-day, and the following officers were elected for the year commencing Jan. 1, 1848:—

President—Marshall P. Wilder.

Vice Presidents.—B. V. French, Cheever Newhall, E. M. Richards, J. S. Cabot.

Treasurer.—Samuel Walker.

Corresponding Secretary.—J. E. Teschemacher.

Recording Secretary.—E. C. R. Walker.

Professor of Botany and Vegetable Physiology.—John Lewis Russell, A. M.

Professor of Entomology.—T. W. Harris, M. D.

Professor of Horticultural Chemistry.—E. N. Hosford.

STANDING COMMITTEES.

Committee on Fruits.—Samuel Walker, Chairman: P. B. Hovey, Jr., Otis Johnson, David Haggerston, J. S. Cabot, Eben Wight, F. W. Macondry.

Committee on Plants and Flowers.—Joseph Breck, Chairman: H. W. Dutton, W. E. Carter, Alex. McLellan, E. A. Story, William Quant, William B. Richards.

Committee on Vegetables.—A. D. Williams, Jr., Chairman: W. B. Kingsbury, A. D. Williams, Josiah Newhall, James Nugent, Azell Bowditch, E. C. R. Walker.

Committee on the Library.—C. K. Dillaway, Chairman: R. M. Copeland, Joseph Breck, W. B. Richards.

Committee on Synonymes of Fruit.—M. P. Wilder, Chairman: B. V. French, C. M. Hovey, J. S. Cabot, the Chairman of the Fruit Committee.

Executive Committee.—The President, Chairman: the Treasurer, A. Aspinwall, E. M. Richards, Otis Johnson.

Committee for establishing Premiums.—The Chairman of the Committee on Fruits, Chairman: the Chairman of the Committee on Flowers, the

Chairman of the Committee on Vegetables, C. M. Hovey, David Haggerton.

Finance Committee.—Josiah Stickney, Chairman, Joseph Balch, F. W. Macondry.

Committee on Publication.—J. E. Teschemacher, Chairman : C. K. Dilaway, Eben. Wight, Recording Secretary, Chairman of the Committee on Fruits, the Chairman of the Committee on Flowers, the Chairman of the Committee on Vegetables.

A communication was read from A. F. Belknap, Esq., accompanied with the seed of Lentils received from Smyrna.

Voted, That the thanks of the Society be presented to A. F. Belknap, Esq., for his gift, and that the seed be placed in the hands of the Committee on Vegetables for distribution.

Adjourned for one week.

Exhibited.—FLOWERS : The annual exhibition of dahlias for premium took place to-day. The show was exceedingly fine, and most of the flowers superior to any ever before seen in the Society's Hall ; the season has been favorable to a good bloom, and some of the specimens were surpassingly beautiful, especially some of the new fancy sorts.

From the President of the Society, about 300 dahlias, among which were, Marchioness of Cornwallis, Fulwood Scarlet, Mimosa, Lady of the Lake, Essex Goldfinch, Sir. E. Antrobus, Punch, Eugene Sue, Ultimatum, Captivation, &c., also a fine plant of *Erica hyemalis*, and flowers of *Alutylon venosum*, a fine species, with large flowers. From Hovey & Co., dahlias in variety, and six hand bouquets. From P. Barnes, *Achimenes Lehmannii*, and a variety of dahlias. From Messrs. Winship, branches of *Magnolia acuminata*, *auriculata*, and *macrophylla* ; also *Aràlia spinosa* in bloom, and dahlias. From J. Hovey, bouquets and dahlias. From W. Kenrick, three bouquets. From J. L. L. F. Warren, bouquets, and a variety of dahlias. Dahlias were also exhibited by W. Quant, S. R. Johnson, W. Mellar, E. Allen, J. Nugent, A. Bowditch, A. McLennan, T. Needham, John Quant, and John Parker.

The award of premiums was as follows :—

DIVISION A.

PREMIER PRIZE.—For the best twelve dissimilar blooms, to Parker

Barnes, the Society's silver medal, ... \$ 5 00

SPECIMEN BLOOM.—For Lady Charlotte, a light lilac, to J. L. L. F.

Warren, ... 3 00

SPECIMEN BLOOMS OF VARIOUS COLORS.—*Best Yellow*, to Henry

Reid, gardener to N. Stetson, Esq., for *Cleopatra*, \$1 ; *Buff*

or Orange, to P. Barnes, for *Biondetta*, \$1 ; *Purple or Maroon*,

to T. Needham, for *Arethusa*, \$1 ; *Crimson or Claret*, to John

Quant, for *Beeswing*, \$1 ; *Very Dark*, to P. Barnes, for *Essex*

Triumph, \$1 ; *White*, to W. Quant, for *Antagonist*, \$1 ; *Edged*

or Tipped, to T. Needham, for *Viscount Ressigneur*, \$1 ; *Scar-*

let, to J. Quant, for *Spitfire*, \$1 ; *Pink or Rose*, to T. Needham,

for *Widnall's Queen*, \$1, ... 9 00

DIVISION B.

CLASS I.—For the best twenty-four dissimilar blooms, to W. Quant, \$ 8 00

For the second best twenty-four dissimilar blooms, to J. Nugent, 5 00

CLASS II.—For the best eighteen dissimilar blooms, to P. Barnes . 6 00

For the second best eighteen dissimilar blooms, to J. L. L. F.

Warren, ... 4 00

CLASS III.—For the best twelve dissimilar blooms, to Messrs. Hovey

& Co., ... 5 00

For the second best twelve dissimilar blooms, to W. Quant, . 3 00

As we could not get the names of all the varieties which took the prizes, the following are named as among those in the prize stands:—Beeswing, crimson, Antagonist, white; Cleopatra, yellow; Arethusa, purple; Purity, white; Bonadetta, buff; Vicomte de Resigneur, tipped; Constantia, edged; Primrose, sulphur; Lady Cooper, rose; Golden Rule, yellow; La tour l'Auvergne, scarlet; Cheltenham Queen, white; Sir Edward Antrobus, crimson; Caleb Cope, vivid rose; La Polka, primrose; Ultimatum, fine scarlet; Ithuriel, buff shaded with pink; Ansel's Unique, yellow tipped with red; La Belle Blonde, white tipped with lavender; Lady St. Maur, white tipped with light purple; Princess Alice, white; Essex Triumph, very dark; Essex Champion, bright orange; Princess Radzville, white laced with purple; Harlequin, white edged with scarlet; Lady Charleville, fine lilac; Victory of Sussex, maroon; Monsieur Walner, deep crimson with white edge; Indispensible, white; King of Lilac; Fleur de Gand, lilac; Spitfire, scarlet; Essex Champion, scarlet.

Award of premiums for flowers:—

BOUQUETS.—For the best six hand bouquets, to Hovey & Co., \$ 2.

For the second best, to A McLennan, \$ 1.

For the best parlor bouquet, to Messrs. Winships, \$ 2.

GRATUITIES.—To the President, for a display of dahlias, \$ 6.

To J. Breck & Co., for a display of dahlias, \$ 5.

To W. Kenrick, for a large bouquet, \$ 1.

VEGETABLES.—From Hazen Hazeltine, one dozen celery.

October 9th.—An adjourned meeting of the Society was held to-day,—the President in the chair.

There being no business before the meeting,—adjourned for one week.

Exhibited.—FLOWERS: From the President of the Society, Joseph Breck & Co., Hovey & Co., Parker Barnes, Emery Bemis, J. L. L. F. Warren, John Parker, William Meller, O. H. Mather, A. Bowditch, John Hovey, Kendall Bailey, T. Seward and others, superb collections of dahlias, embracing numerous fine varieties and specimens.

From J. L. L. F. Warren, two pyramidal and six hand bouquets. From J. Hovey, two mantel bouquets, and two plants of *Amaryllis Belladonna*. From A. Bowditch, five hand bouquets. From W. Meller, two mantel bouquets. From James Nugent, nine hand bouquets. From Hovey & Co., two mantel and six hand bouquets. From John Quant, one pyramidal bouquet.

Premiums were awarded as follows :—

BOUQUETS.—For the best six hand bouquets, to Messrs. Hovey & Co., \$2.

For the second best, to J. Nugent, \$1.

For a pyramidal bouquet, to John Quant, a gratuity of \$1.

FRUITS.—From the President of the Society, Duchesse d'Orleans, Beurré Cutter, (? Curtet,) Belle de Brissac, Colmar d'Ete, (?) and Heathcot; also from Messrs. Ellwanger & Barry, Rochester, Swan's Orange pears, very beautiful. From E. Bemis, Cambridgeport, fine specimens of Louise Bonne de Jersey and Frederic de Wurtemberg pears. From Messrs. Hovey & Co., Beurré Crapaud pears, very fine, and Semiana plums. From J. F. Allen, Gansell's Bergamot, Seckel, Napoleon, Urbaniste, and Ronville pears; also Black Hamburg grapes, and figs. From T. Needham, Black Hamburg, Frankindale, Cannon Hall Muscat, Syrian, and Black Hamburg grapes.

From J. Munroe, Jr., Chelmsford, Heathcot, Le Curé, and two kinds of pears without names. From W. Meller, Late Royal George, and Heath peaches. From A. Dexter, Deacon Job apples, handsome; Seckel pears. From Kendall Bailey, Isabella grapes, fine. From J. W. Sever, Brown Beurré pears, fine. From G. Merriam, Flemish Beauty, extra large and fine; and Heath and Seedling peaches. From John Gordon, Capiaumont, Napoleon, Brown Beurré, fine specimens, Buffum, and Louise Bonne de Jersey pears. From J. S. Sleeper, Seckel pears, fine. From A. Merriam, Orange pears. From W. H. Blodgett, quinces, large and fine. From J. Washburn, quinces, large and handsome. From L. P. Grosvenor, Pound Royal apples. From J. Arnold, oranges, large and well colored.

VEGETABLES.—From T. H. Perkins, by W. Quant, a dozen fine heads of Palestine lettuce.

October 16th.—An adjourned meeting of the Society was held to-day,—the President in the chair.

The following gentlemen were elected members of the Society :—James H. Welch, Amherst A. Frazar, Boston; J. H. Bacon, Robert Bacon, Medford; Solon Dike, Stoneham; John Donald, Brighton.

Adjourned for one week.

Exhibited.—**FRUITS:** From the President of the Society, Colmar d'Artemberg, Beurré Audisson, Doyenné Musqué, Girardin, Doyenné Panaché, Beurré d'Anjou, Beurré de Rhine, Doyenné doré, Belle et Bonne de Hee, Delices Charles, Doyenné Gris, Jalousie de Fontenay Vendee, Bergamot de Brunon, Sargeret, Beurré de Herckinan, Petre, Heathcot, and four other sorts without names. From F. Tudor, from his garden at Nahant, Napoleon, Fortuné, Chaumontelle, Croft Castle, Buffum, Beurré Diel, B. d'Angleterre, Belle et Bonne, Easter Beurré, Louise Bonne de Jersey, Glout Morceau, White Doyenné, Catillac, Seckel, Martin Sec, Prince's, and Uvedale's St. Germain pears; also Porter apples, all very handsome specimens. From J. Washburn, Delices d'Hardenpont pears. From J. Gordon, very large and fine specimens of Passe Colmar, Duchesse d'Angouleme, and Queen of the Low Countries pears, and two other sorts. From J. S. Sleeper, handsome Dix pears.

From Messrs. Hovey & Co., Excellentissima, Beurré Crapaud, Sargeret, Arhoricrite (?), and White Doyenné pears; also a fine specimen of the Swan's Orange, weighing *eleven ounces*, received from Gen. E. W. Leavenworth, of Syracuse, N. Y. From S. A. Walker, fine Brown Beurré pears. From K. Bailey, fine Isabella grapes. From E. M. Richards, Pennock, White Calville, Baldwin, Rhode Island Greening, Pomme d'Api, Black Prince, Dyer, Minister, Spice (?), Walpole, Lyscom, Kilham Hill, American Wine, Fall Sops of Wine, Porter, Boxford, Fall Pippin, Moore's Sweeting, Gardner's Sweeting, Pumpkin Sweeting, Pumpkin Russet, and three varieties of apples unknown; also McLaughlin, Beurré Bosc, Heathcot, Urbaniste, Le Curé, Harrison's Fall Baking, and two varieties of pears unknown; and Orange quinces. From E. Brown, Seckel pears, fine, and Uvedale's St. Germain. From C. Newhall, Napoleon and Urbaniste pears, fine, also Norton's Seedling, and Ohio grapes. From A. D. Williams, Urbaniste, fine, Seckel, and Marie Louise pears. From S. Downer, Jr., Louise Bonne de Jersey pears, fine. From Isaac Fay, Golden Beurré, (?) Easter Beurré, and Capiaumont pears; Oldmixon Freestone peaches, and Semiana plums. From J. B. Chapin, by Capt. Comstock, Capsheaf pears.

From J. F. Allen, White Nice, Syrian, Black Hamburg, Wilmot's No. 16, Wilmot's Black Hamburg, Portuguese Muscat, (very high flavored,) and White Frontignan grapes; Noblesse peaches, and Seckel pears, fine. From E. Grant, Roxbury, Isabella grapes, finely ripened. From H. Vandine, Cambridgeport, a variety of fine quinces. From T. Needham, Syrian, Black Hamburg, White Frontignan, White Muscat of Alexandria, and Frankindale grapes, all fine. From Neponset Hotel, a remarkable cluster of Uvedale's St. Germain pears. From S. W. Cole, Pocahontas and Pierce's Seedling pears, and Long Stem apples. From Anson Dexter, Blue Pearmain apples, (?) Passe Colmar and Duchesse de Angoulême pears.

The Committee tasted some of the new pears exhibited by the President and Messrs. Hovey & Co., and made the following report.—

From Samuel Walker, the Eyewood, rich flavor; Beurré Duval, good. From M. P. Wilder, Colmar d'Aremberg, (premature,) astringent; Delices Charles, handsome, but poor; Beurré d'Anjou; had much the flavor of Brown Beurré, and fully sustained the high character formerly given it by the Committee; Sargeret, inferior; Girardin, pleasant, but not high flavored; Beurré de Rhine, good; Heathcot, fine; Beurré de Herckman, pleasant. From J. Washburn, Delices d'Hardenpont, fine. From Hovey & Co., Beurré Crapaud, good; Excellentissima, fine. It is proper to state that some of the specimens were not strictly in eating, the rare kinds having been picked for the September exhibition.

VEGETABLES.—From F. W. Macondry, some fine celery. From Josiah Lovett, 2d, a fine show of cauliflowers.

October 23d.—An adjourned meeting of the Society was held to-day,—the President in the chair.

There being no business before the Society,—it was adjourned one week.

ART. V. *Retrospective Criticism.*

Richards's Beurré Pear.—In your October number, page 462, when speaking of the “Richards's Beurré,” you place me in a *false position*, as it leaves the reader to suppose that I had exhibited that fruit *as a new variety*, when not only myself, but even my children, recognized the fruit as the “Summer Bon Chrétien,” the moment we saw it, and I so stated to every one with whom I conversed on the subject. The pears were sent to me by James R. Lawrence, Esq., of Syracuse. So much for this matter.

I will now call your attention to the fact, that no specimens of the “Van Zandt's Superb” and “Prince's Paragon” peaches have been exhibited any where the present season, except those exhibited by myself, although I announced that a reward of \$10 would be paid in each case for the exhibition of a single genuine fruit grown by any nurseryman who had those varieties in their catalogues. I think this result is conclusive evidence that I was correct in my position, that the trees which have been sold under this name by most persons are spurious. Both are *oval* fruits, the former of medium, and the latter of large size, and they are varieties of general excellence. I know when and with whom the errors originated, but deemed it the most proper to merely put pomologists on their guard, without mentioning names, &c.—*Yours, very respectfully, Wm. R. Prince, Flushing, October 19, 1847.*

[We did not intend to convey the idea that Mr. Prince did not know that the pears in question were not true—and ought, perhaps, so to have qualified our remarks, although there was no question against the name of Richards's Beurré. We only intended to state that the pears exhibited under this name, without any reference to Mr. Prince, were the old Summer Bon Chrétien, as we knew that Mr. Prince did not raise them, but received them from western New York. The only error of Mr. Prince was, in not placing a query against the name, which many, who did know the particular facts in regard to this variety, supposed to be a new pear.—*Ed.*]

The Fruits of America.—I see some one in the *Horticulturist* is letting fly a bolt at your colored fruits. I hope and trust that envy and malice are the cause, and not the badly colored or formed fruit.—*Yours, M. W. Phillips, Edwards, Miss., Sept. 1847.*

[We should have supposed that our correspondent could have seen at once the *malice* with which the notice was penned. We only regret that the editor should have allowed the insertion of such a pseudo anonymous paragraph, when he well knew the author, as well as the spirit with which it was penned. It happens, however, that the writer is not well able to conceal his *style*, and, though signed “W., Philadelphia,” our Boston friends well know that the author does not reside *many miles* from this city. But for the query of our correspondent, we should have left Mr. “W.” undisturbed in the enjoyment of his self-satisfied criticism.—*Ed.*]

ART. VI.—*Obituary.*

DIED, in this city, on the 24th of October, MR. JAMES WENTWORTH, in the 53d year of his age.

It is our painful duty to announce the death of an old and valued friend, one with whom we have had an intimate connexion, as one of the house of Dutton & Wentworth, the well known printers of our *Magazine* for several years, and of our new work, *The Fruits of America*. Mr. Wentworth had the principal charge of the book work in their extensive establishment, Mr. Dutton attending to other duties, and it is to his taste and skill, as an experienced printer, that we owe much for the typographical execution of our two works, particularly *The Fruits of America*. In the issuing of that work, Mr. Wentworth spared no pains, and, without egotism, we may say, that a more finished specimen of the art never appeared in this country. No work came into the office but what passed under his eye, and we have no doubt that his laborious application to his art,—Messrs. D. & W. having been the State Printers for some years,—hastened the disease of which he died. In his death, his family have lost a kind husband, and tender parent, and we deeply sympathize with them in their bereavement.

HORTICULTURAL MEMORANDA

FOR NOVEMBER.

FRUIT DEPARTMENT.

Grape Vines, in greenhouse, will now be shedding their leaves, and, where neatness is an object, as it ever should be in the greenhouse, the vines should be carefully gone over every few days with a broom, brushing upwards; this will take off nearly all the leaves which are about to fall, and the house may thus be kept much cleaner; a partial pruning may also be made; that is, to cut off all wood not likely to ripen, or such as is not wanted for another year, not cutting too short, as this can be done at the final pruning next month. Vines in cold houses will require nearly the same treatment if the grapes are all cut. If there are yet some grapes on the vines of late kinds, the house should be well aired every fine day, opening the sashes early in the morning. Grape vines in the open air may be pruned this month, and tender kinds laid down and covered with leaves, straw, or coarse manure. Isabellas may also be pruned now.

Strawberry beds should receive a slight covering of some coarse strawy manure, leaves, seaweed, or old haulm. We have covered with each of these, and find very little difference in the keeping of the plants. All that is necessary is sufficient to keep the ground from freezing and thawing, and throwing the plants out of the ground.

Raspberry plantations may be now made with good success; but, in the latitude of Boston, they should be laid down, and covered with earth.

Fruit trees of all kinds may be safely removed this month. If planted any time before frost, we think it preferable to leaving it till spring.

Scions of trees may be cut now if desired, and placed away in earth in a cool place.

Pear, apple, and quince seeds, and cherry stones may be planted now : let the ground be well manured, and deeply dug. Sow in rows about a foot apart, and one inch deep.

FLOWER DEPARTMENT.

Dahlias, ere this, have probably mostly been taken up, as the frost, the middle of October, destroyed the plants. See that the roots are all housed before severe frost.

Hyacinths, tulips, &c.—From the first to the tenth of November is the best period to plant all hardy bulbs ; if planted too early, they appear above the ground too early in the spring.

Japan lilies should have the tops cut off, and the pots placed away in a dry place till January.

Chrysanthemums will now be flowering freely, and should be kept well watered ; giving liquid guano occasionally.

Azaleas should be rather sparingly watered at this season.

Nemophila insignis, and schizanthuses should be repotted this month.

Hardy roses may be removed now with success. If rare kinds, it will be well to lay down the tops, and cover with leaves or manure.

Napoleitan violets should be protected in frames, or, if in pots, removed to the greenhouse, where they will flower finely.

Pelargoniums, raised from cuttings, should now have the tops nipped off to make them branch out, and become stocky plants. Older plants intended to form fine specimens should have attention : the branches should be tied down, and the young shoots pinched off as directed for young plants.

Herbaceous plants can now be safely transplanted ; any kinds partially tender should be protected by a slight covering.

Pæonies may be removed now.

Chinese primroses in small pots should be shifted into the next size.

Alyssum, mignonette, and ten-week stocks in small pots should be shifted to the next size.

Camellias should have attention ; all the plants should be neatly staked up, the pots top-dressed, and the leaves washed before they are finally arranged.

Ericas will need careful watering, and all long shoots should be nipped off to make the plants bushy.

Verbenas should be placed on a shelf near the glass.

Tender roses in the open ground should all be potted this month, and placed in a frame : those potted early may now be pruned.

Gladioluses should be potted this month.

Petunias raised from cuttings now, make the best stock for next year's plants.

Pansies, taken up and potted, will flower all winter in the greenhouse.

Heliotropes should now be propagated from cuttings for a spring stock.

Scarlet geraniums, if placed in the cellar in a dry airy place, will keep well, and make fine plants for turning out into the border in spring.

THE MAGAZINE OF HORTICULTURE.

DECEMBER, 1847.

ORIGINAL COMMUNICATIONS.

ART. I. *Descriptions and Engravings of Select Varieties of Plums.* By the EDITOR.

IN our September number, (p. 394,) we commenced our series of articles describing all the best varieties of cherries. We now have the pleasure of giving the first article of another series, describing and figuring all the choicest kinds of plums now known, or which may be introduced or produced from seed. Much confusion exists in the nomenclature of this fruit, though to scarcely the extent of that of the cherry; but a great many varieties are cultivated under erroneous names. Our object will be, not only to make the finest sorts better known to cultivators, but to describe the best varieties under their true names, that they may be identified, and their synonymes readily detected.

Not many years since, with the exception of the Washington, Imperial Gage, and one or two other sorts, the principal plums in cultivation were of foreign origin. But now that the rapid augmentation of our native kinds has afforded a better opportunity to make a good selection, the principal varieties generally sought after are American seedlings. Thus the Jefferson, Columbia, Lawrence's Favorite, Hulings' Superb, Purple Favorite, McLaughlin, 'Thomas, &c., are considered as among the choicest varieties which can be selected. The Green Gage, from its superior excellence, has been, and deservedly, a great favorite; for no other variety, however so large and showy, could equal it in flavor and richness. Now, however, if not to be eclipsed by the Reine Claude de Bavay, of which so much has been said, it is at least fully equalled by a new native seedling, which we have already described, the Schenectady Catherine.

The curculio is the great foe to a much more extended cultivation of the plum; but a fruit so valuable, not only for the table, but for the kitchen, should not be neglected: with a little extra care and expense, the curculio may be so subdued, as to do no material injury to a crop.

Our catalogues contain about forty different kinds of native seedlings, many of which have been some time in cultivation, while others are quite new, and recently made known to the public: among the latter, are several which have been produced on the Hudson River, that famed locality for plums, and four of them we are now about to describe and figure. Fine specimens were sent to us from the original trees, and each of them we consider fine acquisitions to any collection. We shall continue our descriptions of both foreign and native kinds:—

1. MULBERRY. *Fruits and Fruit Trees of America.*

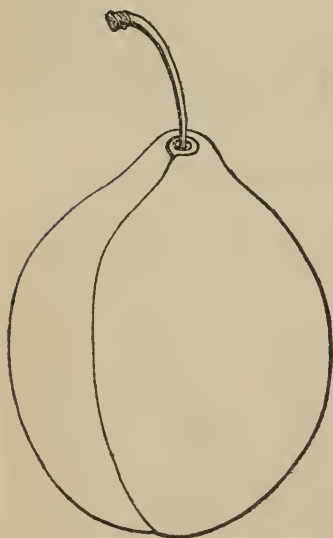


Fig. 46. Mulberry.

Fruit, large, about two inches long, and one and a half in diameter, oval, tapering most towards the stem, with a slight suture on one side: *Skin*, pale dull yellow, dotted with a few crimson specks, covered with white dots, and a thin, whitish bloom: *Stem*, medium length, about one inch, rather slender, curved, and inserted with scarcely any cavity on an elongated obtuse point: *Flesh*, greenish yellow, rather coarse, melting, and adhering to the stone: *Juice*, abundant, rich, sugary and excellent: *Stone*, large, oblong, pointed at each end. Ripe the first of September.

This fine plum, (*fig. 46*,) nearly equal in size to the Washington, but much more oval, was raised in the famous plum garden of Isaac Denniston, of Albany. The tree is moderately vigorous, with large, broad, crumpled leaves.

2. ALBANY BEAUTY. *Fruits and Fruit Trees, &c.*

Fruit, medium size, about one and a half inches long, and nearly one and a half in diameter, roundish oval, with a very

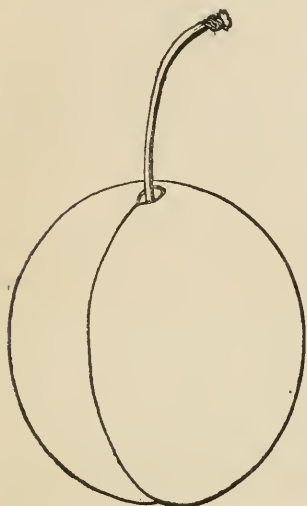


Fig. 47. Albany Beauty.

shallow suture: *Skin*, greenish yellow, with stripes of a darker shade, dotted with red on the sunny side, having a crimson blotch at the base of the stem, and covered with a thin bloom: *Stem*, rather long, about three quarters of an inch, slender, curved, and slightly inserted in a small, shallow cavity: *Flesh*, yellow, melting, and separating from the stone: *Juice*, abundant, sweet and rich: *Stone*, medium size, ovate. Ripe the last of August, and first of September.

This variety, (fig. 47,) is another of Mr. Denniston's Seed-

3. DENNISTON'S SUPERB. *Fruits and Fruit Trees, &c.*

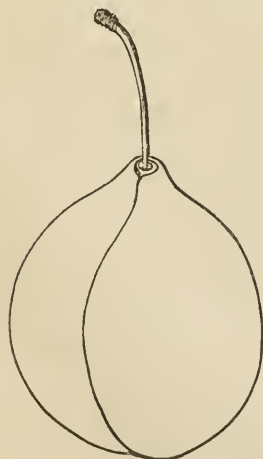


Fig. 48. Denniston's Superb.

separating freely from the stone: *Juice*, plentiful, rich, vinous, high-flavored, and delicious:

Fruit, medium size, about one and a half inches long, and one and a half in diameter, oblong oval, rather full at the end, tapering much to the stem, with a distinct suture extending half round: *Skin*, greenish yellow, shaded and blotched with crimson on the sunny side, and covered with a thin lilac bloom: *Stem*, medium length, about three quarters of an inch, rather slender, curved, and inserted without any cavity on an elongated end: *Flesh*, yellow, very melting and thick,

Stone, medium size, with three prominent ridges on one side, and very pointed at one end. Ripe the last of August, and first of September.

This plum, (*fig. 48*,) is decidedly the richest of any of Mr. Denniston's Seedlings that we have tasted, and comes nearly or quite up to the Green Gage. Its flesh is of great consistence, exceedingly melting and luscious. In size, it is about the same as the Green Gage, but is much more elongated towards the stem. It is a great acquisition.

4. DENNISTON'S RED. *Fruits and Fruit Trees, &c.*

Fruit, large, about one and three quarters inches long, and one and a quarter in diameter, roundish oval, tapering towards each end, with a distinct suture extending half round: *Skin*, pale violet red, somewhat marbled with light and dark shades, thickly dotted all over with fawn-colored specks, and covered with a thin violet bloom: *Stem*, long, about one inch, slender, and inserted in a rather large deep cavity: *Flesh*, dark amber or yellow, melting and separating from the stone: *Juice*, moderately abundant, sweet, sprightly, and excellent: *Stem*, small, ovate, compressed, pointed at each end. Ripe the first of September.

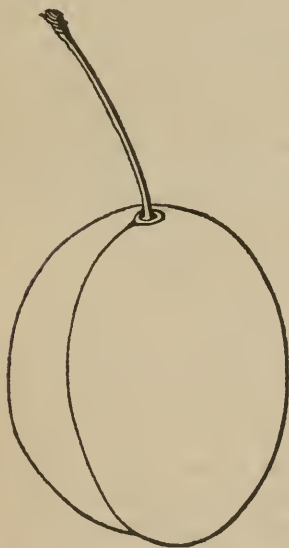


Fig. 49. Denniston's Red.

This variety, (*fig. 49*,) is a very handsome red plum, not surpassed by any of the same color. It was also raised by Mr. Denniston, as its name indicates, and is well worthy of a place in a choice collection of plums.

The past season, Mr. Denniston exhibited, at the show in Albany, many additional varieties of seedling plums, and probably we may have some more new sorts to add to the fine ones which he has already produced. The plum is yet

susceptible of a good deal of improvement, and we may yet hope to find the excellence of the Green Gage in a fruit of the size of the Washington.

ART. II. *The Virgoulouse, or White Doyenné Pear.*

By S. D. P. New Haven, Conn.

TWENTY-FIVE years ago, there was no pear cultivated in this section of the country of such universally admitted excellence as the Virgoulouse, or, as it is called by some, the St. Michael, or White Doyenné. Every cultivator of pears, if he had but one tree, would choose this sort, and many gardens contained several trees with no other variety. About that time, or soon after, the fruit began to crack and blast, and, for many years past, the trees in many of our gardens have hardly produced a single perfect or good pear; and the cultivation of this once favorite and delicious fruit is now generally abandoned in this vicinity.

Remembering the high relish with which I had eaten the Virgoulouse in my boyish days, I read with much interest the remarks of Mr. Downing, in his *Fruits and Fruit Trees of America*, on this pear, of which the following is an extract:—

“It is an old French variety, but, with us, is in the most perfect health, and bears annually large crops of superb fruit. On the seacoast, an unhealthy, diseased stock of this pear has been propagated, until it has become so liable to cracking as to be nearly worthless. In this case, it is only necessary to renew the stock by procuring it again from healthy sources. This experiment has been fairly proved of late.”—(p. 379.)

In the same autumn (1845) that I read these remarks of Mr. Downing, I sent to him an order for some fruit trees, and included in my list the White Doyenné, or Virgoulouse, fully crediting what he had written on the subject. I prepared the ground thoroughly for the trees, and gave them a deep rich soil. The Virgoulouse has grown finely, and is a very thrifty, beautiful tree. It has this year borne fruit, and you may

judge what was my surprise and disappointment to find that every pear, when about half or two thirds grown, began to crack, and ultimately the whole proved worthless. I am, therefore, forced to the conclusion that, however well the Virgoulouse may do in other parts of the country, it cannot be cultivated in this vicinity; and I trust that Mr. Downing, if he publishes another edition of his work, will correct his statement in regard to this pear, and admit that there are some parts of the country in which it cannot be produced of any value. He must do this, or allow that he has himself propagated the diseased stock. S. D. P.

New Haven, Nov. 1847.

In our Review of the *Fruits and Fruit Trees*, when that work first appeared, we particularly noticed the paragraph extracted above, and commented upon it at some length, as we were quite surprised that Mr. Downing should hold to so absurd a notion, that the cracking of the Doyenné pear in the Eastern States was the result of its propagation on *diseased* stocks; and that, to grow it abundantly, it was only necessary to procure trees from an *inland* nursery. We considered his remarks as an attack upon the honesty of Eastern nurserymen, and defended them from so unjust an accusation. The simple fact that the Doyenné pear is cultivated in many gardens in Boston in all the beauty and excellence of its palmiest days, is sufficient to refute so barren an idea. Numerous cases have come under our notice like that of our correspondent; young trees procured from the Highland Nurseries having borne fruit in no way superior to old trees existing in numerous gardens around Boston.

The cracking of this and other pears must be sought from some other cause than *diseased* stocks: we are not yet without hope that some additional light will be thrown upon this interesting subject, and that we may yet see the Doyenné in all its former beauty.

Practically, for this section of country, Mr. Kenrick's views in regard to many old pears are correct. In favorable situations, or upon the quince stock, the Doyenné, St. Germain, Brown Beurré, and other pears, are produced in perfection; but, for orchard cultivation, no individual would

think of setting out one of these varieties; certainly not as long as we have native sorts, such as the Buffum, Heathcot, Swan's Orange, Columbia, Fulton, Hull, Pratt, Tyson, &c. We therefore sincerely hope, with our correspondent, that Mr. Downing will correct his absurd notion about *diseased* stocks, and admit that the cracking of the Doyenné pear is not attributable to any such cause.—*Ed.*

ART. III. *Descriptions and Engravings of Select Varieties of Apples.* By the EDITOR.

WE continue our descriptive account of the finest varieties of apples; six kinds having been already figured at pp. 70 and 163. During the past autumn, we have had the opportunity to make a large collection of drawings, and in our next volume we shall give an account of several excellent varieties.

The three varieties now described are of very recent introduction to notice, and of superior quality. The two first are supposed to be natives of Western New York, and the last is from Canada. They are each desirable additions to any collection of apples.

VII. HAWLEY.

Dows, of some collections in Western New York.

We have already briefly noticed and described this excellent apple, (p. 112.) Last spring, Gen. E. W. Leavenworth, of Syracuse, to whom we are indebted for our account of it, sent us a few scions, and the past autumn he forwarded some fine specimens of the fruit: our correspondent, J. H. Watts, Esq., of Rochester, also supplied us with a quantity of beautiful apples. We have thus been enabled to complete our description, and accompany it with a correct outline of the fruit.

The Hawley apple, (*fig. 50.*) originated on the farm of Mr. Matthew Hawley, of New Canaan, N. Y., about a century ago, from seeds carried from Milford, Ct., from whence Mr. Hawley removed at that time. For about forty years it has been considerably cultivated near the locality of its origin; but its ex-

cellent qualities having recently become better known, it is now found in numerous orchards in Onondaga and Cayuga counties. Mr. Leavenworth states that Hawley and Dows were the names of the men from whom the scions were obtained by his uncles, and it is from the fact that Mr. Dows' farm, on which it was considerably cultivated, was near that of Mr. Hawley, that it was called by some the Dows apple. The trees grow large and vigorous, and produce good and regular crops.

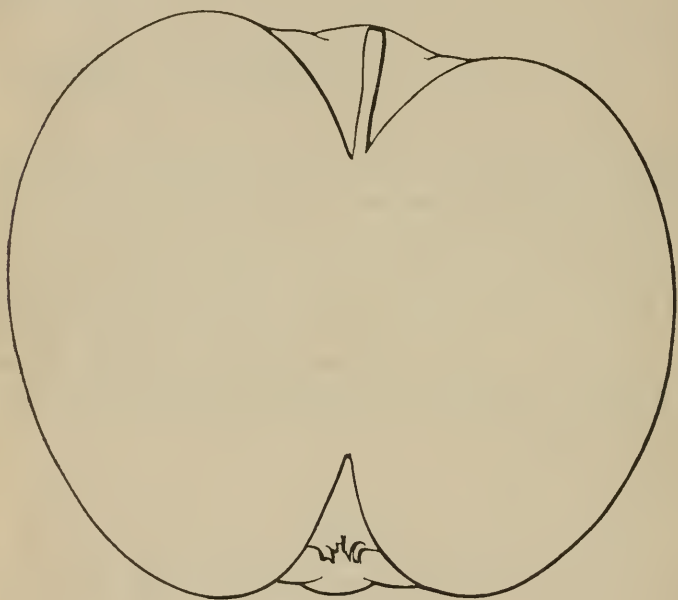


Fig. 50. Hawley.

Size, large, about three and a half inches broad and three deep: *Form*, roundish, rather broad, flattened, and somewhat ribbed at the base, and narrowing little towards the crown: *Skin*, fair, smooth, with an oily surface, pale green, becoming of a rich lemon yellow when mature, and covered with small scattered russet specks: *Stem*, medium length, about three quarters of an inch, straight, rather slender, and inserted in a deep, broad, and uneven cavity: *Eye*, medium size, nearly closed, and moderately sunk in a small, slightly furrowed basin: *Flesh*, yellow, fine, soft, and very tender: *Juice*,

abundant, pleasantly acid, rich, brisk, high flavored, and delicious: *Core*, large, rather close: *Seeds*, medium size, broad. Ripe in September and October.

VIII. MELON.

Norton's Melon, } of some collections in Western New York.
Watermelon, }

The first account we have of this superior apple, (*fig. 51*,) is that contained in a letter from our correspondent, J. W. Bissell, of Rochester. In sending us a few scions of Swan's Orange pear, and other fruits, among which were several apples, last spring, he added some of this apple, and writes:—"I send you the Melon, or Norton's Melon, as it is sometimes called."

A short time since, some fine specimens of the fruit were

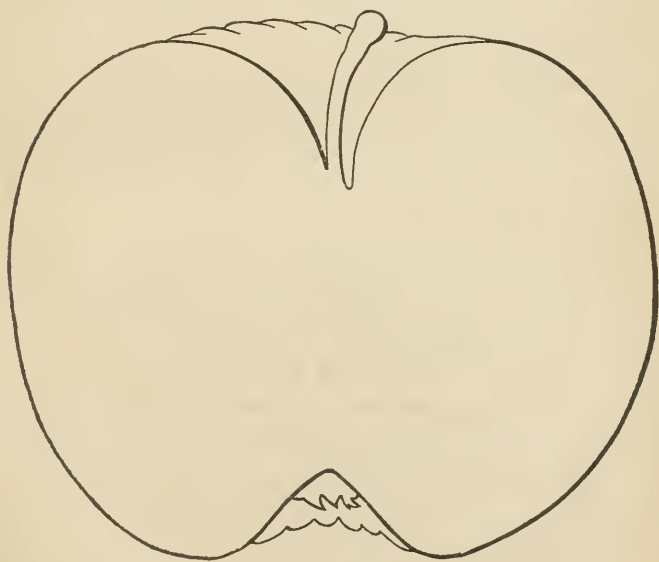


Fig. 51. Melon.

sent to the Massachusetts Horticultural Society, by Mr. W. R. Smith, of Macedon, under the name of the "Watermelon," and we were glad to have the opportunity of tasting this variety. One of the apples was given to us by the chairman of the Fruit committee, from which we have drawn up the annexed description, and from which our drawing has

been made. It is, in our opinion, a very superior fruit; with a flesh remarkably tender and juicy, and a flavor strongly partaking of the melon, from whence probably its name. It is a large fruit, and of a peculiarly bright and handsome appearance. It is, in some respects, like the Northern Spy, and comes from the same source, as will be seen by Mr. Smith's letter, which we copy:—

“I have taken the liberty of forwarding to thy address, a few specimens of an apple known here as the ‘Watermelon,’ though noticed in a Rochester Nurseryman's Catalogue as ‘Norton's Melon,’ for what reason I am not informed. It has been cultivated to a very limited extent in East Bloomfield for perhaps thirty or forty years, having been circulated from the old Chapin orchard, famous for its paternity of the Northern Spy, &c. From a member of the Chapin family, I learn that it is not considered a native of their vicinity, but was brought from Salisbury, Ct. On this point, however, there seems much uncertainty; and I have thought it expedient to send it to your society for exhibition, hoping that it might be recognized. Ordinarily it keeps well until midwinter, frequently several weeks later. The smaller specimens indicate the average size.”

No such apple is known to us to exist at the present time in Connecticut, though it may be still confined to some particular locality. It is probable it was raised from seed at or about the same period as the Northern Spy.

Size, large, about three and a half inches broad and nearly three deep: *Form*, roundish, very slightly flattened at each end, little angular, with an uneven and somewhat knobby surface: *Skin*, fair, smooth, pale yellow in the shade, partially covered with light red, and distinctly striped with vermilion scarlet, russeted around the stem, and covered with large scattered russet specks: *Stem*, medium length about one inch, rather slender, and deeply inserted in a funnel-shaped cavity: *Eye*, large, partially closed, and rather deeply sunk in a large, open basin; segments of the calyx broad: *Flesh*, white, fine, crisp, and very tender: *Juice* abundant, with a delicious admixture of sweet and acid, and with a rich melon flavor: *Core*, medium size, nearly close: *Seeds*, medium size, rather broad. Ripe in October and November.

IX. ST. LAWRENCE.

Montreal, of some collections.

Fine specimens of this handsome apple were forwarded us by J. H. Watts, Esq., of Rochester, accompanied with the following note:—"I send you some samples of the St. Lawrence apple, which I believe the Committee on Fruit [of the Rochester Horticultural Society] gave the premium to this season. The Hawley apple was exhibited at the same time. My ideas would be, that the Hawley is far superior."

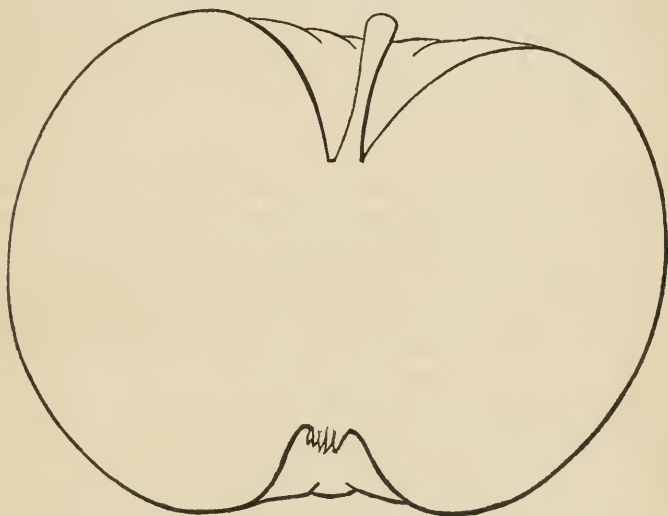


Fig. 52. St. Lawrence.

Three years ago, we received trees of the St. Lawrence, (*fig. 52*,) from Messrs. Ellwanger & Barry, of Rochester, who recommended it as a fine variety. This it certainly is, especially when its size and beauty are taken into consideration. We, however, agree with Mr. Watts that it is not equal to the Hawley; indeed, we consider the latter as having few, if any, equals of its season, in texture of flesh, as well as color and flavor. The St. Lawrence bears a great resemblance to the Fameuse, another celebrated Canada apple; but it is much earlier, and nearly twice the size. We do not find it described by any author.

Size, large, about three and a half inches broad, and two

and a half deep: *Form*, oblate, regular, very broad at the base, and narrowing little towards the crown: *Skin*, fair, smooth, pale yellow, nearly covered with broad and distinct stripes, and splashes of red and deep crimson, which extend to the crown: *Stem*, short, about half an inch long, rather slender, and obliquely inserted in a very broad, deep, and open cavity: *Eye*, medium size, closed, and deeply sunk in a very abruptly depressed and slightly furrowed basin; segments of the calyx, medium length: *Flesh*, white, fine, slightly stained with pink, and very tender: *Juice*, tolerably abundant and pleasantly acid, with a rich and peculiar flavor: *Core*, rather large, close: *Seeds*, small. Ripe in September and October.

ART. IV. *Floricultural and Botanical Notices of New and Beautiful Plants figured in Foreign Periodicals; with Descriptions of those recently introduced to, or originated in, American Gardens.*

44. *ACHIMENES SKINNERI* Lindl. and *ACHIMENES PYROPÆA* Lindl. (Gesneraceæ.)

These are the names of two new species figured in the last number of the *Journal* of the Horticultural Society; and Mr. Gordon, superintendent of the plant department, has communicated an article descriptive of their habits and treatment, which we extract:—

Achimenes Skinneri is a very handsome and distinct species, forming a link between the tall and dwarfer kinds, being exactly intermediate between *A. grandiflora* and *hirsuta*. The flowers are about the shape and size of those of *A. grandiflora*, and like them are quite flat and round, not reflexed, and narrow in the upper petals like *A. pedunculata* and *hirsuta*; while, on the other hand, the flowers, like those of the tall kinds, (*A. pedunculata* and *hirsuta*,) have a large eye and a yellow spotted throat. In foliage it differs from its nearest ally, *A. hirsuta*, in the leaves being more pointed, more attenuated than cordate at the base, more deeply and sharply serrated on the margin, and of a lighter green in

color. The leaves of *A. hirsuta* are deeply cordate, overlapping the stem at the base, much broader, nearly ovate, much thicker, studded with strong hairs, and much more wrinkled on the surface.

Achimenes pyropæa, a charming little plant, is an intermediate form between *A. coccinea* and *rôsea*, having the bright scarlet flowers of the former, and the habit of growth and foliage of the latter. In brilliancy of color it surpasses either.

In cultivation, these, like the other *achimenes* with scaly bulbs, may be made to bloom, any time from June to October, in constant succession; and the "ruby" has the advantage of being much earlier in coming into bloom than the old *A. coccinea*, which seldom can be bloomed till August, and consequently too late for summer exhibitions; on the other hand, the ruby *achimenes*, if treated properly, will come in well for summer exhibitions. (*Journal of Hort. Soc.*, October, 1847.)

45. *LIEBIGIA SPECIOSA*, *D. C., et fil.* ELEGANT LIEBIGIA, (*Gesneriæ*.)

A green house plant; growing two feet high; with blue and white flowers; appearing in summer; a native of Java; increased by cuttings; cultivated in sandy peat, leaf mould, and loam. *Flore des Serres*, 1847, pl. 271.

A beautiful species of a new genus, dedicated to M. Liebig, the celebrated chemist. The leaves are large, oblong, acuminate; stem erect, and the flowers, which appear in axillary as well as terminal panicles, are about twice the size of a *gesnera*, of a pure white, shaded with deep blue on the upper side of the tube of the corolla. It was introduced by Mr. T. Lobb, from Java, and first flowered in the Kew gardens. It is a fine plant and should be introduced into every collection, where it will make a fine addition to our summer blooming greenhouse plants. (*Flore des Serres*, Sept.)

46. *PENTSTEMON GORDONI* *Hook.* Mr. Gordon's Pentstemon. (*Schrophulariæ*.)

A hardy perennial; growing two feet high; with violet flowers; appearing in autumn; a native of Columbia River; cultivated in common garden soil. *Flore des Serres*, 1847, pl. 269.

A fine North American species from the Platte River, and one which would undoubtedly prove hardy in our gardens. It has fine spikes of large violet flowers, and is extremely beautiful. It was raised from seeds sent to the Kew gardens. (*Flore des Serres*, Sept.)

REVIEWS.

ART. I. *An Address delivered before the Chester County Horticultural Society, at West Chester, Pa., Sept. 10, 1847.*

By WM. H. DILLINGHAM. With the Transactions of the Society for the years 1846, 1847. Pamph. 8 vo. pp. 48.

THE Chester County Horticultural Society is a young and flourishing association, and its first two exhibitions have been highly creditable. Many fine kinds of fruits have been exhibited at the two annual shows of 1846 and 1847, and liberal premiums awarded.

We have now before us an address, delivered at the last annual show in September, by Mr. Dillingham, and we appropriate a page or two to a few of the most interesting portions of the same.

Mr. Dillingham thus pays a merited tribute to the memory of Penn :—

The name of the State in which we rejoice, is descriptive of its characteristic features to the first settlers. Penn found the country granted to him by his sovereign, a forest, and the designation assigned to it, equally simple and appropriate, means, in plain speech, Penn's woods. It has been our lot to see it, in "bud and blossom like the rose;" and it is our business here to-day, surrounded by the treasures of Pomona and the splendors of Flora, products of the rich inheritance of a happy soil and clime, perpetuated to us by the virtues of our ancestors, while felicitating ourselves in these enjoyments, to increase its fertility and beauty. To the region occupied by the members of this Society, as part and parcel of the original County of Chester, pertain the honor and the responsibility of having been the first resting-place of the Proprietary of this then noble forest, the chosen spot to begin the development of his great idea of a Commonwealth founded upon the blessed principle of "peace on earth and good will to man." You are the children's children in the third and fourth generations of his companions; many of you still cultivate the paternal acres which Penn himself granted to your ancestors. You have still the custody of the earliest muniments of Title, and the Records of the first Judicial proceedings in our Commonwealth, which secure to you the possession of the soil that produces these plants and fruits and flowers.

Invited upon this occasion to speak for you and to you, the speaker has identified himself with you, and feels that he has a right to do so, not alone from a devotion to the common objects of your interesting anniversary. Our children have a common ancestry in the friends and companions of

Penn. Within these walls, now decorated by fair hands for this autumnal festival, for half a life-time he took an earnest, anxious part in the questions connected with the settlement of the estates where you plant your gardens and cultivate your grounds. Here he has toiled, as some present can bear him good witness, for days and weeks, to demonstrate, that a decayed relic of one of the ancient monarchs of Penn's woods, "to wit," a certain black-oak stump, should determine all questions about a boundary line of one of the estates "aforesaid." But this ancient Hall of Justice, identical with the history, transmission, and partition of every estate in this county for the last sixty years, and with the present title to each particular spot where these flowers and fruits were grown, is soon to pass away. It was well to decorate it thus before the final sacrifice. Already its elegant and classic neighbor seems impatient of its humbler presence, whose interesting memories it cannot supply.

In reviewing the history of this time-honored Hall, how are we reminded of the contrast between those warlike demonstrations from ancient Upland, which threatened, with artillery, to batter down these rising walls, and the peaceful decorations, redolent of beauty and harmony, which grace its *exit*. These flowers and fruits, methinks, are kindly tokens which mother earth sends up to bid the Old Court House good bye.

As Chester County led the van in the settlement and culture of Penn's woods, so should it still be the banner county in agriculture and horticulture. It possesses the elements for this distinction in the virtue, industry, intelligence, and thrift of its population, and in the fertility of its soil, its genial climate, its varied surface, its beautiful streams, its abounding springs, its rich, indigenous Flora—and in the good fortune to have produced a son, the pride and pleasure of whose life it is, to develop the history, character, and properties, the beauties and the uses, of the vegetable world. Permit me to add to these commanding advantages, your vicinity to and daily improving facilities of intercourse with our great metropolis, justly famed for its devotion to science, and particularly to the study of the Natural Sciences. Her schools and her collections in these departments are scarcely rivalled on this continent, and they are all within your reach. You have already set an example worthy of imitation by every other county in the state, in your own Collections of Natural History. They evince a taste and spirit worthy of all commendation.

As Pennsylvania was the first to establish an Agricultural Society, so she was the first state of this Union to establish a Horticultural Society: still earlier, she had made an attempt at a Botanic Garden. It is now near an hundred years since Bartram began his enterprise on the Schuylkill, and its glory has not yet departed. You have still the evidence before you of what Humphry Marshall attempted, soon after, in this vicinity.

Botany, an essential element of Horticulture, has still higher claims upon you: the first cultivators of the ancient County of Chester were countrymen of the immortal Linnæus, the great discoverer of that secret whereby the whole vegetable kingdom was first reduced to system through all its varieties, from the trees of the forest to the moss.

The Swedes were the true pioneers in this cultivation, now our pride and boast. Within a century after the hardy sons of the North set foot upon this soil, and with stout heart and strong arm assailed the giant forests, their illustrious countryman possessed himself of his master key.—(pp. 11—14.)

The author thus alludes to the influences which have produced the increased attention to horticultural and rural pursuits:—

Within a few years, Horticultural Societies have given it an impulse, in all its departments, unknown before. It is not fifty years since the Horticultural Society of London was founded. The labors of this society have produced results truly wonderful. The example has been followed, and similar societies have multiplied both in Europe and in this country. That of Paris, established in 1826, has been patronized by the court, by the nobility, and very generally by their distinguished men. The *Jardin du Plants*, at Paris, is regarded as the best establishment of the kind in the world, and includes what may be called a school for horticulture.

These are, perhaps, the main sources of that impulse which has been given to this pursuit throughout Europe. Horticultural societies are now universal, and rapid progress has been made here as well as there, within the last thirty years. Nothing is more obvious to those in the habit of resorting to our own markets, than the improvements in esculent vegetables and fruits, within this period, both in variety and quality. Still greater advances have been made in the general diffusion of a taste for plants and flowers. The florists constitute now an important class in our large towns, and some of their establishments are truly magnificent. The Greenhouse, the Hothouse, and the Conservatory, are regarded as among the most refined and elegant indulgences of men of wealth and taste, and very generally introduced. Many of our most distinguished men, in the various professions and in the higher walks of life, took an active part in the formation of the Pennsylvania Society, gave great attention to it for years, and still help sustain it. It has always been a special favorite with the fair sex, whose tastes and habits are so congenial to the beautiful flowers, and their virtues so well reflected in them. The monthly exhibitions furnish opportunities for pleasant re-unions to those who do not indulge in the gaieties of dissipation, and are uniformly characterized by pervading cheerfulness and innocent enjoyment. It is impossible to be selfish or ill-natured at a horticultural exhibition. It is the appropriate place for cordial greetings, kind words, winning looks, and cheerful smiles.

Our anniversary festival is well known to you as the most popular and most joyous of the year. No do the votaries of Flora and Pomona grow weary in their assiduities to keep up the interest of these annual exhibitions. Few know how much time, and care, and thought are given, and cheerfully given, in the preparations. There, as here, no doubt, the participation of the ladies adds a zest to these labors—what else, indeed, could have drawn such thousands and thousands to our gala through such a succession of

years—the gay and joyous throng increasing at each succeeding anniversary. It has in some measure supplied that, in which it is said we were deficient—*sources of innocent amusement.*—(pp. 20—22.)

We might quote much interesting matter from Mr. Dillingham's address, but we have only space for his closing remarks, which we particularly commend to some of our amateur cultivators, whose ideas in regard to the cultivation of flowers are altogether too narrow and utilitarian :—

We would not, if we could, have every object in life merely utilitarian. This might lead us to become sordid, selfish, and narrow-minded. These flowers were not made in vain. This pleasure which we experience at the sight of beautiful objects, and our enjoyment of their fragrance, are blessings conferred upon us by a bountiful Providence, purposely designed to lighten the burthens of life, alleviate its cares, and cheer us on our way. What would become of us if there were nothing to divert the thick crowding memories of all that is sorrowful in the past, or prevent still darker forebodings of the future? It is right to cultivate these tastes and to multiply objects for their enjoyment. Nature invites it—

“Where wild flowers breathe their rath perfume ;”

Scripture teaches it—

“Consider the lilies.”

In Flowers we find the highest perfection of beauty, and fragrance most grateful to the sense,—beauty of form, and color, and texture, and combination, in never ending variety ; and equally endless variety of perfume, each challenging comparison with the rest. The highest perfections of art pale before the beauties of Flora—Art can but catch the breath which Flowers exhale, to form its most exquisite perfumes. Horticulture comes in aid of Nature to develop these perfections and multiply our delights. The gardener's skill has achieved wonders. Witness the Rose, the Carnation, the Pelargonium, the Camellia, and the Pansy ; compare each splendid variety with its humble original.

Happiness is what we all seek. But there is no true happiness to be found without a constant recognition of the Author of these beautiful things around us, the observance of his laws, contemplation of his works, love of his perfections, and awe of his power. Where can we learn the lesson better than in this department of the volume of Nature? Here we shall be certain to find constant exhibitions of infinite wisdom and infinite goodness,—here we discover that “order is Nature's first law.” We seek to imitate these perfections and to conform our own lives to the dictates of that wisdom and goodness which engrosses our affections and our thoughts. We see and feel that it is impossible for such beauties and perfections to have originated without design. Thus we may find in the rose of Sharon and the lily of the valley, emblems of flowers that never fade,—thus, by means of “a well-watered garden,” we may hope to attain a final resting place under the shadow of the tree of life.—(pp. 33—34.)

MISCELLANEOUS INTELLIGENCE.

ART. I. *General Notices.*

Pruning.—Now that the summer's business is fairly at an end, it is time to take steps to provide against an inordinate pressure of business in the forthcoming spring; for any arrears of autumn or winter business, at that busy period, will prove a great hindrance to the carrying out a properly devised system through the ensuing season, and can be justified on the grounds of necessity alone. Planting, pruning, training, trenching, &c., are matters that belong peculiarly to this dormant period, and having before disposed of planting and trenching, by diverting attention to its importance, we will now offer a few practical remarks on pruning. The habits of fruit trees vary, more especially as to the manner of forming and exhibiting their buds; thus there is no difficulty in distinguishing the fructiferous portions of the apple, or of bush fruit in general, whilst the apricot and the filbert are, at this period, somewhat obscure in regard of these points. Even in the pear, more especially some of the newer kinds, such as the Passe Colmar, the Seckel, the Marie Louise, and some others, it is difficult to prune with safety in the early part of winter. For these reasons, therefore, we say, prune bush fruit the moment you can find time. Follow closely with cherries, plums, and apples, and towards Christmas lay by the knife until the early part of February, when the filberts will be blossoming; then, after a slight thinning of the crowded and inside spray, male catkins may be brought if requisite, and suspended among the bushes. The apricots will, by this time, give unequivocal signs by which to know the true blossom buds; these, then, may immediately receive their pruning. The peach and nectarine will succeed the apricot; and these may be followed by the pear, and lastly by the fig. In pruning bush fruit thin liberally. Let no two branches in the black currant and the gooseberry touch when finally thinned; these seldom require shortening; an equal and judicious thinning is therefore every thing here. In pruning apples the thinning of the branches or old wood should be the first step; this, however, requires caution.

The late Mr. Knight, of Downton, was much against cutting out large limbs, unless a severe necessity existed. His authority is too weighty to be passed over easily, more especially as he lived most of his time in a cider district. In thinning the young wood of espaliers, remember that the first point is to secure a continuance of leading shoots to form a compact tree; and the second, to secure a free admission of light to all parts of the tree. The same remarks will apply to the pruning of all the rough espaliers or dwarf standards of the kitchen garden, be they of what kind they may. Raspberries may now be planted and pruned: some of the soundest remarks on this subject, we ever read, appeared in the *Chronicle* for October 9.—(*Gard. Chron.* 1847, p. 703.)

Pruning the Vine.—In your leading article on the subject of the Vineries at Bishop's Stortford, you concluded by saying that the vines were pruned on Mr. Crawshaw's system. I presume from that general allusion that the system is well understood by professional gardeners; but I rather think it is not as universally known as it would seem to deserve, if it can be proved to be certain and successful. In all treatises I have read on pruning the vine, from Speechley downwards, I have never met with any which has detailed this mode of treatment, or recommended its adoption. I have heard it in conversation described as "the walking-stick system," because its principle consists in giving very much that appearance to the main stem, which is always preserved. At each autumnal pruning the whole of the new wood is cut off to within an eighth of an inch of the old stem. So small, indeed, is the spur left, that the growth of the wood of the following year nearly levels it with the old wood. At the point of junction of this eighth of an inch with the stem, one or more buds are developed, which in the succeeding year become the shoots upon which the fruit is produced. The old-fashioned grape-grower sees with dismay in this system all the buds of the year which have grown and ripened under the influence of a summer and autumn's sun, annihilated "at one fell swoop," and stares when told that he is to trust entirely for his crop of next year to a bud which he can hardly see. Might I ask your contributors who delight in vine culture whether the success of this plan depends upon the great power working at the roots—the forty barge loads of manure, such as our friend at Bishop's Stortford supplies to the gluttony of his vines—and which converts that which, in ordinary circumstances, would at best be but a weak wood-bud, to the production of the finest fruit? Is this mode of pruning likely to be generally successful? There are, undoubtedly, many advantages in it. Amongst others, it does seem more consistent with nature, and with all our ideas of rendering culture subservient to her laws, to retain the main stem of the tree which furnishes the largest capacity for the flow of the sap; it also enables us to keep both fruit and foliage close under the rafters, and thereby to secure the greater quantity of light flowing into our houses. Any useful discussion on the subject will oblige J. J.—(*Id.* 1847, p. 718.)

Tagetes pinnata.—Allow me to offer my meed of praise to this delightful annual. As a perpetual bloomer, from earliest summer till latest autumn, it is unrivalled as an annual. The rich golden yellow of its beautifully reflexed petals, the exquisite pinnate foliage and compact growth, are all worthy of our warmest admiration, and claim for it a place in every garden. As a mass flower I know nothing of its class to equal it.—(*Id.* p. 670.)

ART. II. Foreign Notices.

ENGLAND.

Dahlias and Dahlia Exhibitions for 1847.—Agreeably to our usual plan of keeping our amateur cultivators informed of every thing relative to the improvement and cultivation of the Dahlia, we have gleaned from our Eng-

lish papers the following accounts of the Dahlia exhibitions of the principal Societies in England and Scotland. We regret to see, with many of our cultivators, a tendency to neglect the cultivation of this splendid autumnal flower, without which our gardens would be despoiled of their greatest ornament. It is true the dry summers of 1845 and 1846 were so fatal to the fine blooming of the plants, that many were so much disappointed in their cultivation as to discard them, or at least greatly reduce the number of their plants; but the past season has been so propitious to their growth that we trust another spring to see the usual attention given to the selection of the new kinds, which have been proved to possess the real properties of good flowers.

ROYAL CALEDONIAN HORTICULTURAL SOCIETY.—Best twenty blooms. Beeswing, Miss Vyse, Louis Philippe, Lady of the Lake, Caractacus, Lily White, Vanguard, Cloth of Gold, Sir E. Antrobus, Marchioness Cornwallis, Marquis of Aylesbury, Princess Radziville, Berryer, Queen of Sheba, Mrs. Anderson, Marchioness of Lorn, Scarlet Gem, Empress of Whites, Captain Warner, and Alice Hawthorn.—To Mr. T. Handyside, Glen Nurseries, Musselburgh.

ROYAL SOUTH LONDON HORTICULTURAL SOCIETY.—Best twenty-four blooms. Lady of the Lake, Beeswing, Yellow Standard, Beauty of Sussex, Essex Triumph, Miss Sarah, Louis Philippe, Andromache, Victory of Sussex, Lily White, Marquis of Aylesbury, Springfield Rival, Beauty of Hants, Admiral Stopford, Empress of Whites, Captivation, Raphael, Nonpareil, Essex Rosy Lilac, Princess Radziville, Mrs. Shelly, Captain Warner, Lady Stopford, and Standard of Perfection.—To Messrs. Cutter & Shankey, Slough.

WEST OF ENGLAND DAHLIA EXHIBITION.—Best twenty-four blooms. Lady St. Maur, Beeswing, Lady of the Lake, Gloria Mundi, Admiral Stopford, Biondetta, Miss Vyse, Louis Philippe, Captain Warner, Marchioness Cornwallis, Captivation, Beauty of Sussex, Queen of Roses, Nonpareil, Queen, Essex Triumph, Yellow Standard, Standard of Perfection, Bermondsdy Bee, Aurantia, Mrs. Shelly, Cassandra, Springfield Rival, Princess Radziville.—To Messrs. Cutter & Shankey.

NORWOOD HORTICULTURAL SOCIETY.—Best twenty-four blooms. Pulchella, Prometheus, Victorine, Metropolitan Queen, Mrs. Shelly, Cheltenham Queen, Model, Rosetta, Essex Triumph, Miss Vyse, Robusta, Queen of the Isles, Erecta, Mary Anne, Scarlet Gem, Pride of Surrey, Duncan, Beauty of Bath, Admiral Stopford, Essex Goldsmith, Standard of Perfection, Alarm, and Bragg's Star.—To Mr. Gaines, of Battersea.

METROPOLITAN GRAND DAHLIA SHOW.—Best twenty-four blooms. Lady Cooper, Madame Zellar, Cleopatra, Beeswing, Nonpareil, Alexandria, Marquis of Bath, Miss Sarah, Hon. Careat, Standard of Perfection, Essex Rosy Lilac, Raphael, Victorine, Caractacus, Griseldi's Eboracum, Conspicuum, Rembrandt, Ophir, Mrs. Anderson, Queen of Roses, Minerva, Miss Vyse, and Berryer.—To Mr. Barnes, Stowmarket.

NORFOLK AND NORWICH HORTICULTURAL SOCIETY.—Best twenty-four blooms. Marchioness of Cornwallis, Nonpareil, Essex Triumph, Yellow Standard, Queen of Roses, Queen of Perpetuals, Standard of Perfection,

Andromeda, Essex Rosy Lilac, Essex Bride, Captain Warner, Berryer, Captivation, Beeswing, Marquis of Aylesbury, Madame Zellar, Esther, Diadem, Bathonia, Rembrandt, Lady Stopford, Royal Chancellor, Princess Radziville, and Sir E. Antrobus.—To Mr. Widnall, Grant-Chester.

ROYAL CHELSEA DAHLIA SOCIETY.—Best twenty-four blooms. Lily White, Beeswing, Lady St. Maur, Essex Triumph, Lady of the Lake, Gloria Mundi, Springfield Rival, Biondetta, Captain Warner, Yellow Standard, Captivation, Arethusa, Venusta, Nonpareil, Beauty of Sussex, Queen of Roses, Hon. Mrs. Herbert, Bermondsdy Bee, Empress of Whites, Standard of Perfection, Admiral Stopford, Ackbar, Raphael, and Marchioness of Cornwallis.—To Messrs. Cutter & Shankey, of Slough.

These are the principal Dahlia exhibitions, and a careful inspection of the above awards will show which are the leading flowers. By a reference to our last year's summary, (Vol. XII. p. 489,) it will be seen that we gave a list of such as our correspondent stated would be the "crack" flowers, and they are all included in the above premiums.

Fancy Dahlias.—As much interest is felt in this class of flowers, we give the following as the names of those which have been the most prominent in the prize stands of the Royal South London and Metropolitan Grand Dahlia Shows :—

Captivation, Surprise, Mimosa, Viscount Ressegeur, Herherzoy Stephen, Minerva, Miss Watson, Hermione, Admirable, Desdemona, Roi de Pointelles, Adolphe Dubras, Coquette, Master G. Clayton, Baron Hugel, Pantaloon Pamsl, Ober Justigrath, Mr. Walner, Queen of the French, Madame Wachy and Narcissus.

Seedlings of 1848.—The following premiums were awarded at the Royal South London Exhibition :—

An extra prize, presented by Messrs. Bragg & Bright, of Slough, for four blooms of the best seedling fancy Dahlia not sent out, to Mr. Elphinstone, for a seedling named Mrs. Shaw Lefevre, a well-built flower, florets fine in shape, of good substance, and smooth on the edges, eye beautifully formed, color red and white. Extra prizes offered by members, open to all classes, for four blooms of the best seedling Dahlia not sent out—1st, to Mr. Collisson, Bath, for a seedling named Shylock, a rich scarlet self, form good, florets finely shaped, of good substance, and smooth on the edges, eye beautifully formed, it also appears very constant; 2d, to Mr. Gaines, Battersea, for four blooms of a seedling named Mount Blanc, a white variety, flower large, form good, florets nicely shaped, of good substance, and smooth on the edges, eye well up in the centre, its being a shade whiter would be a decided improvement; 3d, to Mr. Pope, of Chelsea, for a seedling named Nell Gwynne, a handsome variety in its class, flower large, tolerably good in shape, eye well up in the centre, color a bright primrose. The above three seedlings, besides their prizes, were awarded first-class certificates to each. Mr. Keynes exhibited four blooms of a seedling named Walter Hilson, rather a striking flower, outline first-rate, it has great depth of florets, which are nicely shaped, and of good substance, the eye is a little defective, being a trifle sunk, color an orange buff; it obtained a first-class

certificate. Mr. Barnes, of Stowmarket, exhibited four blooms of a seedling named *Boule de Feu*, form excellent, eye well up in the centre, the florets rather quill too much to be perfect, color an orange red; it received a first-class certificate. Mr. Barnes also exhibited a fancy variety named *Jenny Lind*, which received a first-class certificate, a very promising flower, all the properties being tolerably good, color white and maroon. A first-class certificate to Mr. Turville, for a seedling named *Fire King*, flower large, form good, florets beautiful in shape and of firm texture, eye a trifle too low, color a fiery orange scarlet: this variety should be grown in every collection, for its splendid color. A first-class certificate to Mr. Collison, Bath, for a seedling named *Sir Robert Peel*, a handsome-shaped variety, with a beautiful formed eye, color a point against it, being a dull scarlet. A first-class certificate to Mr. Smith, Hackney, for a seedling named *Yellow Perfection*, flower rather small, form good, florets beautifully shaped, of good substance, and smooth on the edges. A first-class certificate to Mr. Rudd, for seedling named *Jenny Lind*, a promising flower, possessing most of the properties, color a white self.

This report comprises all the information we can glean from our foreign papers, and the fancier will be at no loss in a selection of kinds in purchasing plants.—*Ed.*

BELGIUM.

Exhibition of the Agricultural and Horticultural Society of Brussels, October 1, 1847.—The annual fêtes for the celebration of the national independence, commenced on the 23d September, and continued until the end of the month; these were gala days; all the world seemed congregated at Brussels. Concerts, plays, archery, and cross-bow shooting; races, reviews, dancing, illuminations, and various amusements, daily succeeded each other; the éclat was further increased by an exhibition given by the above-named societies, thus uniting the *utile et dulce*; the government also placed several additional prizes at their disposition. The show was held at the ancient palace of the Prince of Orange, near the Park, and was daily thronged with visitors, who could not fail to be highly pleased. The florists and nurserymen of Belgium are not one iota behind their brethren of England either in skill or enterprise, and in the present instance have nobly sustained their reputation; it is more particularly to their part of the exhibition that I shall confine my observations; not that the agricultural part was less interesting, but simply because it is out of my province. I may, however, say, *en passant*, that there were upwards of two hundred and thirty exhibitors of cereals. The suite of apartments devoted to the show consisted of eight or nine rooms on the ground floor; these were entirely filled with “Cereals, fruits, plants, cut flowers, and vegetables,” arranged with excellent taste; bands of music were stationed in a tent in the court, and performed daily from eleven till four o’clock, during which time the public were admitted gratis. The middle of one *salon* was devoted to the various kinds of grain, which were shown in the straw; three rooms were completely occupied with samples of potatoes, consisting of almost every

known variety. Some idea may be formed of the interest the Belgians take in the cultivation of this useful root by the fact that there were more than one hundred and eighty collections of potatoes, among which I counted about forty exhibitors of seedlings raised in 1846 and '47, the particulars of which I will give presently. Vegetables of every description were numerous and generally fine, especially carrots, pumpkins, and cabbages. The fruit was magnificent. I hardly know how to express myself sufficiently complementarily of the pears and apples,—finer, I believe, were never before exhibited, certainly never surpassed in quantity or quality. The interest was further increased by some specimens of fine seedling pears, of which more anon. This rich display entirely filled one large *salon* and two ante-rooms. As for flowering plants, of course, no one expected to see the brilliancy of a spring exhibition, that is out of the question at the end of September; but, in every other respect, it was splendid. The noble specimens of palms, ferns, conifers, cacti, orchids, &c., &c., were the admiration of every lover of horticulture.

Roses were neither numerous nor fine, certainly not to be compared with those I have seen exhibited in France, more particularly at the Chateau des Fleurs. Two collections of well-known varieties, in small pots, were all that were shown. General collections of stove and greenhouse plants were numerous, but of course this was not the season to see them to advantage; among them were some well-bloomed orchids and other plants, from M. Forkel, the king's gardener, at Lacken; and in the collection of M. Rosseels, of Louvain, were Mr. Fortune's *Anemone japonica*, *Cuphea miniata* and *platycentra*, *Habrothamnus elegans*, *Justicia carnea*, *Echites splendens*, &c. From M. Louis, gardener to the Duke of d'Arenberg, were some pretty orchids and plants of achimenes, together with *Clerodendron fragrans*, *Hæmanthus coccineus*, &c.; and in that of M. Decraen I observed *Torenia asiatica*, *Cuphea decandra*, *miniata*, *platycentra*, and *strigillosa*, *Siphocampylus nitidus*, *Bouvardia flava*, *Abutilon venosum*, together with several varieties of gesneras, phloxes, verbenas, &c. Among seedlings were some pretty *Gladioli* from M. Carolus, and some phloxes from M. Radigas, especially one in the way of Van Houttii. There was a pretty good collection of fuchsias, from M. Millet, of Ixelles, but unfortunately the season was too far advanced for them. Several prizes were offered for dahlias grown in pots, and also for twenty-five cut flowers; in this latter class there were several exhibitors of fine flowers; some were little if at all inferior to those shown at the London metropolitan exhibitions, especially the stands of MM. Rosseels, Van Geert, Haquin, and De Knyff, which contained most of the English show flowers, and the best Belgian, German, and French varieties; specimens of *Beeswing*, *Andromeda*, *Josephine*, *Lady of the Lake*, *Marchionness of Cornwallis*, *George Clayton*, *Victorine*, *Scarlet Gem*, *La Belle Blonde*, *Optimus*, Hon. Sidney Herbert, Miss Vyse, *Standard of Perfection*, *Star*, *Royal Chancellor*, *Reine d'Angleterre*, *Yellow Standard*, *Aurora*, *Bathonia*, *Alexandrina*, and *Antagonist*, were splendid. There were not more than ten or twelve seedling dahlias, but the paucity in numbers was more than compensated by quality; for

among those few were two or three excellent flowers, and one superlative, named Toison d'Or, which was considered by every amateur present to be one of the finest dahlias ever raised, being large, finely cupped, very symmetrical, high in centre, and color golden orange or buff; it unanimously obtained the first prize, and I was informed it had been exhibited at several dahlia shows during the season, and always gained the principal prize; among the continental varieties for 1848, this will be the flower of the season. I must not forget some charming bouquets sent by Madame Vauriet, of Brussels; these consisted of an elegant "Bouquet de Noce," two beautiful "Bouquets de Bal," and three splendid large "Bouquets de Table," all arranged in exquisite taste.

I now come to the fruit rooms; here there were upwards of eighty exhibitors, among whom were the Duc de Brabante, Comte de Flandres, and Princess Charlotte. I had been led to expect a large collection of fruit; Flanders has the reputation of being *par excellence* the land of pears, in it have been raised more and better varieties than in all the rest of Europe put together; I was not disappointed, for certainly finer specimens, as regarded size and form, it would be difficult to produce. I have, it is true, seen both in England and France as fine single specimens, but here you meet them in almost every collection. That of M. De Bavay, of the Royal Nursery, Vilvorde, contained about two hundred kinds of pears, apples, plums, and peaches. The collection of M. De Rasse, of Tournay, contained nearly one hundred kinds of pears, in which were also fine specimens; and in the collection of M. Desbuck, of Louvain, were also some very fine fruit, but he had also several very small, which gave it an uneven appearance. The exhibition from M. Louis, of Heverlé, contained very fine and large fruit, more especially of Duchesse d'Angoulême, Doyenné, Beurré d'Hiver, Calebasse bosc, Napoleon, Belle de Bruxelles, and Beurré d'Arenberg pears. In that of M. Millet, of Ixelles, were some very large pears, and some enormous apples. M. Weytz, gardener to the Prince de Ligne, sent a small lot, containing, however, some very fine fruit. La Société de Pomone d'Antoing also contributed about one hundred varieties; and M. Collignon furnished one hundred and fifteen varieties of pears, and the like number of different apples, some of which were very superior, though not at all equal to those of M. Bavay. M. Rummens had a small but very fine collection of pears and some very large melons, that of M. Joly contained enormous fruit of Duchesse d'Angoulême, Belle de Bruxelles, Beurré gris, Calebasse bosc, Bezi de Chaumontel, and Bon Chrétien d'Espagne. I also noticed some very handsome pears in that of M. Meys. As it is impossible to name all the finest varieties, I will pass on to the seedling pears and apples exhibited by M. Bivort, of Geest, Saint Remy, in which were Beurré Kennes (Bivort), a very handsome large fruit; No. 2794, very large; Docteur Capron, No. 2820, Marie Louise Nouvelle (Van Mons), and a splendid fruit numbered 1011. Among the seedling apples the following particularly attracted my attention:—Nos. 3, 7029, 7003, bright yellow, 7007, red, and 7023, a beautiful golden red. M. Ouxelx, of Huy, had also a collection of seedling apples, in which were

some very handsome specimens, but as they were not numbered I am unable to send any particulars. The grapes were not ripe, and quite unfit for exhibition. The pines were exhibited growing, and had nothing whatever remarkable about them. Among the pears one, *Triomphe de Hasselt*, was particularly conspicuous, from its enormous size and shape; it must have been at least six inches long, color brownish green, and bell-shaped; I only saw it exhibited by one person, M. Vandievoet. Among the vegetables were some very large collections; that of M. Simonis, of Liege, contained more than three hundred and twenty different varieties; in it were seven varieties of beet, fifteen of carrots, nine of celery, eight of endive, forty-seven of cabbages and broccoli, fifty three of Haricot beans, twenty-four of lettuce, thirteen of turnips, nine of onions, thirty-two of peas, eight of radish, eight of tomatoes, &c. That of M. Galoppin consisted of one hundred different kinds of beans and peas. Mr. Vanderschriek had some very large cabbages, pumpkins, vegetable marrows, haricots, lettuces, and turnips; but in the collection of M. Rampelbergh, were some most beautiful specimens of broccoli, cabbages, carrots, endive, beans, cucumbers, and pumpkins; better it would have been difficult to meet with. Potatoes occupied a considerable space in the exhibition. The society had offered one gold, two silver gilt, and two silver medals, for the best collections and for seedlings, and certainly there was no lack of competitors. As might be expected among so many collections some were very even and good, and others mediocre. There might be seen varieties that had been cultivated in every kind of soil, and with all sorts of manure; in one place was the produce of sets received from South America, in another from the south of Europe, and in another from the most northern climates. In some collections it was indicated that they had been raised from diseased tubers; in others that sound tubers had been planted in land which had for the two previous seasons entirely failed; in fact, it was evident that a grand experiment had been tried to avert the danger of a national calamity. Several of the collections contained from twenty to seventy varieties, among which were numerous specimens of early white and red Kidney, early white and red round, Ash-leaved Kidney, early and late Irish Shropshire red, Shaw's red Antwerp, blue Saxony, Grosse Monstreuse de Mons, Rouge de Landen, long blue Dutch, spotted red and white Ghent, Rohan, Rose Mousson, early and late Champion, blue Saint Helena, Rouge de Vosges, Corne de Vache, red Scotch, white and red Havannah, Howard, Nine Weeks, Ovale de Growland, Langue de Bœuf, late American red, and many others. M. Rops, of Namur, sent a fine large collection of one hundred varieties, and eight tubers of each. These were all nearly of the same size. M. Lorio, of Liège, had a small collection, but very good; but that of M. Defays-Dumonceau was the most remarkable, containing nearly one hundred and fifty kinds, in capital order. The exhibitors of seedlings were numerous: among the best appeared those of M. Lemer cier, M. Defays, M. Jacobs, M. Couvent, M. Vancelst, (about sixty different kinds, and most of them very fine,) M. Julin, M. Demelin, M. Ouwerx, M. D'Hollonder, M. Peers, (upwards of fifty varieties, and the pedigree of each given,) M. Reul, M.

Beuwans, and M. Duerinck. Some of these seedlings were very handsome, and will, no doubt, prove great acquisitions; but others were to appearance the exact counterpart of some already in cultivation.—(*Correspondent of Gard. Chron.*, pp. 670, 702, 718, 1847.)

ART. III. Domestic Notices.

Sesbània vesicària.—The Fall Senna proves to be *Glottidium floridànum* of *Torrey* and *Gray*, *Sesbània vesicària* of *Elliott*. I like to have a few plants of it in my grounds. Some this year stand sturdily alone, like a sunflower, full twelve feet high. Its large pinnate leaves of twenty or more pairs go regularly to sleep every evening like the *Mimosa*.—*Yours*, M. A. W.

New Grasses.—I should like to know whether any of the grass seeds grew which I sent to you, and what they are. The spikes of some of them are exquisitely beautiful, but perhaps too delicate for “grass bouquets” which I see noticed in your exhibitions. A single spike of the one marked [4. No. 1,] presents a system of *carpentry* scarcely to be equalled in the castle in the air of a fairy. We have some other grasses, especially in swampy places, which I think would prove useful in the hands of your lady grass bouquet builders. They are, however, some miles from me; but I will try to procure some seeds for you, if you wish it.—*Yours*, M. A. W., *Athens, Ga.*, Nov. 1847.

[We did try several of them and found them very handsome, but all have not yet flowered, they were planted so late. The Means grass grew six feet. If they stand our winter we shall have a better opportunity to see them next year. We shall be glad to have the seeds.—*Ed.*]

Weather in Georgia.—*New Dahlias*.—We had our first hard frost this morning, 34°; two weeks ago we had some slight hoars, therm. 40°, just enough to blacken the mere edges of dahlia leaves; but they have since ripened off and are now mostly dry; the roots must be in fine order for next year. Our unusually rainy summer has been very favorable to them, and they have been in full flower from June to October, and finer than I ever saw them before. The new kinds, Sir Ed. Antrobus, Orlando, Ithuriel, Antagonist, &c., were fine, but not *much* better than some old sorts, especially Grandis, Smith's Napoleon, Mrs. Rushton, and Rosa Superba. But by far the richest dahlia which I ever saw anywhere is Widnall's Rainbow, as it appeared in my ground this year. I have grown it for several years, but never saw it in such perfection as this year. Mr. Waddel has raised some seedlings which are “better” than most of the late imported ones. I have myself this year two seedlings, which I value highly. It seems to me that in favorable seasons, that is, in wet and cloudy ones, we of the South can far outstrip you in this Mexican plant.—*Yours*, M. A. W., *Athens, Ga.*, Nov. 1847.

Roses and Seedling Chrysanthemums.—Our late blooming roses are also exceedingly fine, better than I ever saw before ; and although the forests have turned brown and are fast shedding their leaves, the garden is very gay with chrysanthemums, marigolds, zinnias, thunbergias, &c. By the way, we beat you all hollow in chrysanthemums. Mr. Waddel has some very superior seedlings. I intend to prepare some notice of our gardening operations “in these diggings” for your annual review, if I can get time, and my lame shoulder will allow me to write.—*Respectfully, yours, M. A. Ward, Athens, Ga., Nov. 1847.*

RHODE ISLAND HORTICULTURAL SOCIETY.—The second annual exhibition of this society was held at Hoppin’s Hall, No. 33 Westminster street, on the 29th and 30th of September last. The reports of the several committees upon fruits, flowers and vegetables, showing a schedule and description of the articles exhibited, and the premiums awarded, have been sent to us, and we have endeavored to find room for their insertion. We have, however, condensed them somewhat, leaving out the names of the fruits exhibited by persons from other places, as they will be found in the list of sorts exhibited at the last annual show of the Massachusetts Horticultural Society.

FRUITS: By L. C. Eaton, North Providence: R. I. Greening, American Nonpareil, Lyscom, Northern Stripe, American Golden Russet, Ramsdell’s Sweeting, Meadow Greening, Pearmain Russet, Tolman Sweeting, Porter, Reddock, Baldwin, Winter Seedling, Nonsuch, Detroit, Bell Flower Sweet (unknown), Jacob, Lady, Striped (unknown), Pie, Black, House Sweeting, Gilliflower, Fall Sops of Wine, Peck’s Pleasant, Forbidden Fruit, Hubbardston Nonsuch, and American Russet apples of 1846; Seckel, Williams’s Bon Chrétien, Bezi de la Motte, Napoleon, Beurré de Capiaumont, Knight’s Seedling, Louise Bonne de Jersey, and unknown pears; five varieties peaches, unknown; Native, Hamburgh, Golden Chasselas, Muscadine, and Isabella grapes; Orange, Portugal, and Pear quinces; two kinds of watermelons.

By Stephen H. Smith, Smithfield, President of the Society: French Nonpareil, Clark, Blue Pearmain, American Nonpareil, Honey Greening, Yellow Harvey, Winter Harvey, White Seek-no-Further, R. I. Greening, Marigold, Newtown Pippin, Sprague, Maiden’s Blush, Tolman Sweeting, White Spanish Reinette, Lady, Queen Anne, Nonsuch, Red Seek-no-Further, Waterman Sweeting, Roxbury Russet, Peck’s Pleasant, Brook, Dartmouth Sweeting, Baldwin, Esten, and Ribstone Pippin apples; St. Michael’s, Cumberland, Seckel, Capsheaf, Passe Colmar, Beurré d’Aremberg, Beurré Diel, Wilkinson, and Ananas pears; Native (Blackstone) grapes; Minorca melons.

By Marshall P. Wilder, President Mass. Hort. Society, 35 varieties of pears. By Samuel Walker, Roxbury, 25 varieties of pears.

By Madam Ives, R. I. Greening, Baldwin, French Nonpareil, and Unknown apples; Passe Colmar, Buffum, Williams’s Bon Chrétien, Duchesse d’Angoulême, Seckel, and unknown pears. Thomas Carpenter, Cumberland, Roxbury Russets, Peck’s Pleasant, R. I. Greening, Black Gilliflower, and

Wine apples; Blood and Seedling Clingstone peaches; White Native grapes. Preserved Arnold, Smithfield, Smooth Pearmain, Russet Pearmain, Tift Sweeting, Sapson, Newtown Spitzenburg, Tolman Sweeting, R. I. Greening, Lady, No Blossom, Wine, Baldwin, Crow's Egg, Black Gilliflower, Herkimer Sweeting, Peck's Pleasant, Roxbury Russet, and Unknown apples. Welcome Alverson, Johnston, Welcome and Peony Seedling apples; Williams's Bon Chrétien pears. Mrs. M. Brownell, Duchesse d'Angoulême pears. D. H. Leonard, Seekonk, Westcott pears; Lemon Clingstone, Mammoth, White Magdalen, and two seedling varieties peaches. Robert Manton, Beurré Diel and Napoleon pears. George W. Chapin, Williams's Bon Chrétien and St. Michael pears; Miller's Spanish peaches; Isabella grapes. Henry Rogers, St. Michael pears. Edward Carrington, Capsheaf, Seckel, Gansel's Bergamot pears. George B. Peck, Williams's Bon Chrétien pears. George Hunt, Seckel pears. William Magee Snow, R. I. Greening apples; pears, for a name; three varieties peaches, unknown; Isabella grapes, and Orange quinces. Ezra Bourn, Russet Pearmain, — Sweeting, Tolman Sweeting apples; Seedling peaches. David Ide, Smithfield, Gloria Mundi apples. Barton Whipple, Cumberland, Hollow Crown apples.

J. B. Leonard, North Providence, Warren Russet, Sapson, Black Gilliflower, American Nonpareil, and Russet Pearmain apples; Seedling peaches. William S. King, North Providence, Gloria Mundi, Borden Russet, Tift Sweeting, Crow's Egg, Black Gilliflower, Baldwin, Unknown, and Blue Pearmain apples; Orange quinces. J. A. Larkin, Cranston, Pumpkin Sweet, Ox, Vandevere (?), White Spanish Reinette, and Lady apples. J. J. Stimson, two varieties apples unknown; Bishop's Thumb, Golden Beurré of Bilboa, Julienne, Black of Worcester, Easter Beurre, Williams's Bon Chrétien, two varieties pears unknown; Orange quinces. Wanton Vaughan, Gloria Mundi apples. Dyer's Nursery, White Gilliflower, American Nonpareil, Roxbury Russet, Cluster, Black Gilliflower, Gloria Mundi, and three varieties of apples not named. Moore's Eagle Nursery, Unknown apples; Williams's Bon Chrétien pears. Leander Fenner, Cranston, Chesborough Russet, Black Gilliflower, Esopus Spitzenburg, Long Stem, Roxbury Russet, New York Pippin, Spice, Pomme Water, Russet Pearmain, Knight's Pippin, Tift Sweeting, Smooth Pearmain, Gloria Mundi, Fall Pippin, Borden Russet, R. I. Greening, Dartmouth Sweeting, Peck's Pleasant, Cat Head Greening, Doozen, and Unknown apples; Knight, Capsheaf, St. Michael, Seckel, Seedling, two kinds of pears unknown; Melocoton, Lemon Clingstone, Blood, three seedling varieties peaches.

Thomas Andrews, Smithfield, R. I. Greening, Roxbury Russet, and Pomme Water apples, for a name. A. L. Andrews, Smithfield, R. I. Greening apples. O. Manchester, Fruit Hill, Rhode Island Greening apples. George Bartlett, Smithfield, Russet Pearmain, Roxbury Russet, Pomme Roi, Baldwin, and Peck's Pleasant apples; St. Michael, Buffum, Vicar of Winkfield, and Duchesse d'Angoulême (?) pears. R. H. Ives, Knight's Seedling pears. Thomas W. Latham, Smithfield, Capsheaf,

Williams's Bon Chrétien pears. B. W. Comstock, Capsheaf, Williams's Bon Chrétien, Easter Beurré, St. Germain, and Unknown pears; White Nectarine peaches. W. H. Dart, White Doyenné pears. Rufus Sprague, Cranston, Remington pears; Water and Citron melons. By the Society, Pratt Pears. Capt. S. Townsend, Duchesse d'Angoulême and Seckel pears; Black Hamburg grapes. Mrs. Judge Burgess, Seckel pears; Isabella grapes. Moses B. Ives, Lemon Clingstone peaches. S. Metcalf, Seedling (free stone) peaches. J. Metcalf, Seedling (clingstone) peaches; Catawba and White Sweetwater (open culture) grapes. Thomas Read, Late Admirable peaches. James G. Fales, North Providence, Orange quinces. C. B. Manchester, nectarines. Miss P. Lippitt, figs. R. Dalglish, Black Hamburg, Muscadine, and Chasselas d'Arboyce grapes. James Arnold, New Bedford, St. Peters, Royal Muscadine, Black Hamburg, Horatio, and Victoria grapes. Charles Hayford, Isabella grapes. Richard Waterman, Isabella grapes. Peter Church, Catwaba grapes. Samuel Lewis, Isabella grapes. Miss Frances Aplin, Seedling, resembling Catawba grapes.

Premiums awarded:

- To L. C. Eaton, for finest specimens of most approved varieties of fall and winter apples, \$4.
 Stephen H. Smith, for second best, \$2.
 Preserved Arnold, Smithfield, for best specimens of finest varieties of winter apples, \$3.
 Thomas Andrews, Smithfield, for second best, \$1.
 Welcome Alverson, Johnston, for finest dish of fall apples, \$1.
 J. B. Leonard, North Providence, for finest dish of winter apples, \$1.
 E. Carrington, for second finest specimen of best autumn pears, \$1.
 R. Dalglish, for finest dish of autumn pears, \$1.
 B. W. Comstock, for finest dish of winter pears, \$1.
 W. M. Snow, for second best specimens of finest varieties of peaches, \$1.
 D. H. Leonard, Seekonk, for best dish of peaches, \$1.
 James G. Fales, North Providence, for best specimens of quinces, \$2.
 J. Kingsbury, for best specimens of most approved varieties of native grapes, \$2.
 W. M. Snow, for second best, \$1.
 J. C. Dodge, Attleborough, for finest specimens of most approved varieties of grapes, grown under glass, \$3.
 R. Dalglish, for second best, \$1.
 C. B. Manchester, for nectarines, \$1.
 L. C. Eaton, for best varieties of water melons, \$1.
 S. B. Halliday, for best varieties of citron melons, \$1.
 Leander Fenner, Cranston, for fine display of apples, pears, and peaches, \$2.
 FLOWERS.—Mrs. H. Ives, by Robert Dalglish, Bouquet, Gladiolus, Colchicum—Dahlias, Nonpareil, Charles XII., Cleopatra, Painted Lady, and others. R. Dalglish, bouquet of Verbenas and Perpetual roses, fine.
 S. Moore, Eagle Nurseries, dahlias, two bouquets. Wm. Magee Snow,

a great variety of dahlias, under names. Ezra Hubbard, Amaranths, three varieties, one striped; German Asters, (fine,) Zinnias, Coxcombs, Balsams, (good,) Dahlias, Ithuriel and other varieties; Helianthus Perennis, and other flowers. Mrs. Peter Church, Marigolds. Mrs. George Hunt, bouquet of German Asters. C. L. Bowler, Dahlias, a number of varieties not named. Miss E. A. Bowler, three fine bouquets. J. Kingsbury, bouquet of dahlias. J. J. Kelton, Coventry, a number of good dahlias. Stephen Cornell, a great variety of fine dahlias, under names. Mrs. Lewis P. Mead, fine bouquet of dahlias. Mrs. Lieut. Paine, fine bouquet of dahlias. Mrs. Lucy McLellan, Wickford, two fine hand bouquets. A. L. Andrews, Smithfield, bouquet of dahlias and Gentiana crinita, (fringed Gentian.) E. L. Edwards, Cactus Jenkinsonia, with three other varieties engrafted thereon, a large plant. Mrs. William P. Rathbone, Night blooming Jasmine. Thomas J. Carpenter, a fine wall bouquet, harp shaped. Daniel E. Carpenter, a great variety of fine dahlias, under names. L. C. Eaton, a great variety of named dahlias. L. Mitchell, a stand of dahlias, but not enough varieties for competition.

Premiums awarded :

FOR DAHLIAS.—The first premium, for the best twelve dissimilar blooms, to Levi C. Eaton, \$5.

The second premium, for the second best twelve dissimilar blooms, to Stephen Cornell, \$2 50.

The best dahlia exhibited, to Levi C. Eaton, \$2 50.

FOR BOUQUETS.—To Silas E. Moore, for a bouquet, \$1 50.

To Robert Dalglish, for a hand bouquet, \$1 50.

A gratuity to Ezra Hubbard, for fine German Asters, \$2.

VEGETABLES.—A great variety of vegetables were exhibited, but the report does not possess sufficient interest to name the particular sorts. The premiums were awarded as follows :—

For articles at the July exhibition, viz :—

To Mrs. Ives, by R. Dalglish, for the best cauliflower, \$1 50.

Rev. J. W. Cook, Bristol, for the best rhubarb, \$2 50.

Richard Waterman, Warwick, for early potatoes, \$2.

J. J. Stimson, for best lettuce, \$1.

For articles exhibited September 1 :—

Levi C. Eaton, for best sweet corn, \$1 50.

S. B. Halliday, for best blood beets, \$1.

For articles exhibited September 30 :—

W. C. Snow, for best drum-head cabbage, \$2.

W. C. Snow, for best celery, \$1 50.

S. B. Halliday, for best tomatoes, \$1.

The committee also recommend that gratuities be given as follows :—

To T. Andrews, Smithfield, for three specimens of potatoes, \$1.

T. Edwards, North Providence, for handsome squashes and cabbages, \$1.

S. E. Moore, Cranston, for handsome squashes, \$1 50.

S. B. Halliday, by A. Reid, for a variety of fine vegetables, \$3.

A. G. Millard, Warwick, for potatoes and string beans, \$2.

Richard Waterman, Warwick, for a fine article of seedling potatoes, \$3.

CLEVELAND HORTICULTURAL SOCIETY.—This society held its annual exhibition and fair at the Empire Hall, in Cleveland, on Thursday, September 16, 1847. The committee, in the report sent to us, state that "the season, which has been backward throughout, prevented the exhibition of many fruits which are generally mature at this time. Nevertheless, the show was exceedingly fine; the favorable spirit evinced towards the society was never more flattering; the increased zeal of the public was truly gratifying to its friends, and the ardent competition for the luscious prizes at the sales was never equalled at previous meetings. So may it ever be until we can boast with confidence that Cleveland is the garden of the West."

FRUITS: The President, George Hoadly, exhibited the Stroat, Gravenstein, Porter, Early Bough, Early Strawberry or Red Juneating, Autumn Strawberry (of Thomas), Summer Pearmain, Kerry Pippin, Pryor's Red, Norfolk Beaufin, Nonpareil, and Danvers' Winter Sweet apples; Seckel, White Doyenné, Heathcot, Frederick of Wurtemberg, Marie Louise, Napoleon, and Rousselet of Rheims pears; President, Pine Apple Clingstone, and Crawford's Late Melocoton peaches. Prof. J. P. Kirtland exhibited, Newark King, Parson's Early, Pryor's Late Red, Fall Harvey, Porter, Pound by weight, Hubbardston, Kerry Pippin, Putnam Russet of Marietta, Roxbury Russet as cultivated by him for thirty-five years, Cathead, Holland Pippin, Yellow Bellfleur, Domine, Beauty of the West, Swaar, Jonathan, White Pippin of Cincinnati apples; Charles d'Austria, Louise Bonne de Jersey, Bon Chrétien d'Ete, Autumn Bergamotte, Chaumontelle, Brown Beurré, Heathcot, Duchesse d'Angouleme, Tilton, Winter Nelis, Beurré Van Marum pears; Catawba, Alexander, Isabella, Ohio or Segar Box grapes; Blood and Lemon Clingstone peaches.

McIntosh & Co., Belmont, Ribston Pippin, Esopus Spitzenburg, Holland Pippin, Pomme de Neige, Green Everlasting, Red Everlasting, Flower of Kent, Norfolk Beaufin, Pumpkin Sweet, Summer Queen, Gravenstein, Danvers' Winter Sweet, Mela Carle, Pennock's Red Winter, Summer Pearmain, Rambo, Newtown Pippin, Rox. Russet, Black Gilliflower apples; Williams's Bon Chrétien, Beurré Diel, Cabot, Beurré d'Aremberg, Stevens' Genesee, Surpasse Virgoulouse, Passe Colmar, Napoleon, Foster's St. Michael, Greene Sylvanse, White Doyenné, Rousselet de Rheims, Beurré Gris, Cumberland, Frederic of Wurtemberg, Marie Louise, St. Germain, Wilkinson, Winter Nelis, Cushing, Newtown Virgoulouse, Seckel, Compte de Lamy, Brown Beurré, Urbaniste, Rushmore's Bon Chrétien, Doyenné Gris, Lewis, Fortunee, Heathcott, Summer Doyenné, St. Ghislain, Glout Morceau, Charles X., Prince's St. Germain, Aston Town, Duchesse d'Angouleme, Uvedale's St. Germain, Beurré Aurora, Dix, King's Bon Chrétien, Easter Buerré pears; Snow, Lemon Cling. Red Cheeked Melocoton, President, Red Rare Ripe, Old Mixon Free peaches; Isabella, Catawba, Alexander, Seedling grapes; Orange quince.

Elliott & Co., Isabella, Catawba, and Winslow's Seedling grapes; Passe

Colmar, Wilkinson, Winter Nelis, Marie Louise, Foster's St. Michael, Bon Chrétien Fondante, Louise Bonne de Jersey, Duchesse d'Angouleme, Beurré Diel, Frederic of Wurtemberg, and Williams's Bon Chrétien pears—the two last named varieties were borne on trees two years from the bud this year; Coe's Golden Drop plums; Cranberries, common variety grown on sandy garden soil; Old Mixon Freestone, Yellow Alberge, Late Yellow Rare Ripe, Incomparable, Crawford's Early, Melocoton, Red Cheeked Melocoton, President, and Orange peaches; Black, Baldwin, Stroat, Murphey, Brabant Bellfleur, Cumberland Spice, Roxbury Russet, Belmont, Fall Pippin, Court of Wyck, American Summer Pearmain, Maiden's Blush, Summer Calville, R. I. Greening, Cable's Gilliflower, Gravenstein, and Alexander apples; Orange quinces.

E. Cable, Red Cheeked Melocoton, Admirable Cling, Cable's Late Melocoton, Cable's Pineapple Cling, Old Newington Cling, Powell's Yellow, Morris's White, Cable's Early Melocoton peaches; Late Purple plums; Williams's Bon Chrétien, Seckel, St. Michael, Duchesse of Berry, Napoleon, Wilkinson, Duchesse d'Angouleme, Green Sylvange, Beurré Diel, Easter Beurré, Beurré d'Aremberg, and Capsheaf pears; Maiden's Blush, Fall Pippin, Sweet Russet, Autumn Sweet Bough, American Summer Pearmain, English Codlin, R. I. Greening, *Æsopus Spitzenburg*, Ortle Pippin, Stroat, Hampshire Greening, Jonathan, Richfield Nonsuch, Fameuse, Peck's Pleasant, Goble Russet, Roxbury Russet, Winter Russet, Hub. Nonsuch, Belmont, Baldwin, Dutch Pippin, Moore's Sweeting, Swaar, Smoke House, Gilliflower, Yellow Bellfleur, Alexander, and Seek-no-farther apples. William Case, Beurré Gris, Bergamotte Cadette, White Doyenné, Beurré Van Marum, Virgoulouse, and Compte de Lamy pears; Baldwin, Court of Wyck, R. I. Greening, Roxbury Russet, Cumberland Spice, Brabant Bellfleur, Swaar, Black, and Royal Pearmain apples; Cable's Melocoton, Red Cheeked Melocoton, Prince's Paragon, Morris's White, Yellow Rare Ripe of Downing, Golden Rare Ripe, Case's Red Rare Ripe, Newington Cling, and President peaches; Isabella grapes, and two other varieties unknown. A variety of fruits were also contributed by other individuals.

FLOWERS.—There was a very fine show, according to the report, especially of dahlias, the principal exhibitors of which, were McIntosh & Co., who showed fifty-nine varieties of roses, and a quantity of dahlias. Elliott & Co. exhibited upwards of eighty varieties of roses.

The annual meeting of the society for the election of officers took place, and the following gentlemen were chosen:—

President, George Hoadly; 1st Vice President, J. P. Kirtland, 2d, C. D. Brayton, 3d, W. D. Beaty, 4th, William Case; Corresponding Secretary, J. F. Hanks; Recording Secretary, J. Houghton; Treasurer, H. F. Brayton; Librarian, Benjamin Stair; Committee on Synonymes, J. P. Kirtland, G. Hoadly, F. R. Elliott, A. McIntosh, E. Cable; Trees and Shrubs, Hoadly, Houghton, Case; Finance and Library, Payne, Younglove, Brown; Entomology, Kirtland, Beaty, Hanks; Manures, Case, Cassels, Kirtland.—(*Cleveland Herald*.)

Pears in the Southern States.—I have nothing to write you worth a place in your journal, of which I am sorry. As to fruits, the St. Germain is the only pear that I have had since the Summer Thorn and Messire Jeans have gone out. All my other varieties, as the Winter Bon Chrétien and Virgoulouse, being cracked and gritty, except a few from a dwarf tree, the fruit of which resembles the Bon Chrétien in shape and size, but is, I think, rather more mealy and not so good; but this may be from its being upon quince root. My St. Germain trees have borne a full crop, and the fruit is very fine in size. I weighed one to-day that weighed a pound and an ounce. The season has been of the worst for fruit that I have ever known; and trees that will bear in such a season deserve a place in every garden, in my opinion.—*I remain yours, respectfully, Robert Chisholm, Beaufort, November 1, 1847.*

ART. IV. *Massachusetts Horticultural Society.*

Saturday, October 23d.—Exhibited.—FLOWERS: From Messrs. Hovey & Co., a fine plant of *Sedum Sieboldii*, and six hand bouquets.

FRUITS.—From the President of the Society, Marie Louise, Ananas, Parasille, Napoleon, and Bezi de la Motte, and Jacquemont pears: the Ananas was pronounced excellent: also Seedling St. Germain pears raised by Gov. Edwards, and received from New Haven. From Messrs. Hovey & Co., Vicompte de Spoelberch, Figue de Naples, Passe Colmar, Beurré Crapaud, Bezi Montigny, and Beurré d'Arenberg pears; also Swan's Orange and Reid's Seedling, received from western New York: the Committee pronounced the Vicompte de Spoelberch fine. From S. Walker, Eyewood, Urbaniste, and Leon le Clerc pears; Eyewood proves to be excellent. From J. Washburn, fine Orange and Portugal quinces, and Isabella grapes. From J. Stickney, Madotte pears of indifferent quality. From Miss Jones, Boston, Doyenné blanc pears, very fine: fine specimens of the same pear were received from E. J. Long, and from a garden in McLean street. From S. A. Walker, fine Brown Beurré, Roi de Wurtemberg, and Louise Bonne de Jersey pears. From George Newhall, Fulton, Seckel and Urbaniste pears, all fine. From Hon. J. S. Cabot, specimens of the Monarch pear, which proved to be very indifferent: this was from a tree received from Messrs. Hovey & Co., and is the *fourth* variety which has been received for the Monarch from England. It was not the Monarch of Mr. Thompson, though it may be the Monarch of Mr. Knight; so many errors have been made in regard to this variety, that some cultivators doubt the existence of the original pear of Mr. Knight.

Oct. 30th. Exhibited.—FRUIT: From the President of the Society, Duchesse d'Angouleme pears, very handsome. From J. F. Allen, Syrian, Zinfindal, Wilmot's No. 16, Black Hamburg, and White Nice grapes; also the Ropes and Verte longue d'Automne pears. From Jos. Stickney, hand-

some Beurré Diel and Surpasse Virgoulouse pears. From O. Johnson, a basket of Duchesse d'Angouleme pears, containing *seventy-seven* large specimens, the produce of an espalier tree, covering a space five feet high and nine feet broad. From John Gordon, Easter Beurré pears, fine. Quinces from John Washburn and Samuel Pond.

From A. H. Ernst, Cincinnati, Ohio, Winter Orange, Sieulle, and Beurré Diel pears; also, Newtown Spitzenberg Kaighn's Spitzenberg, Yellow Bellflower, Wine Sap, Rambo, Pryor's Red, Milan, Gennetting, Newtown Pippin, Roxbury Russett, (received under the name of Putnam Russet,) and White Pippin apples; the Pryor's Red bears so close a resemblance to the old Pearmain, that we are inclined to think it the same variety, only produced in fine condition in the soil and climate of the West. From S. W. Cole, Doyenné Blanc, and Louise Bonne de Jersey pears; also, Holden Pippin, Western, Leland Pippin, Magnolia, and Bourrassa apples, the latter fine. From S. D. Pardee, New Haven, Seedling pears raised in that city and called the New Haven Beauty, flavor indifferent. From Cheever Newhall, Oliver's Russet pears, which the committee remark, "sustains its previous reputation." From Messrs. Hovey & Co., Doyenné Gris, Doyenné Santelete, Vicompte de Spoelberch, and Arboricrite (?) pears.

November 6th. Exhibited.—FRUITS: From Messrs. Hovey & Co., Excelentissima, Vicompte de Spoelberch, and Belle Héloise pears. From E. M. Richards, Urbaniste pears, from a tree on the quince, fine. From J. S. Sleeper, Belle Héloise pears. From S. Walker, Beurré Duval and Figue pears, both excellent. From W. Stearns, Salem, specimens of the Lawrence pears, which were delicious.

Nov. 13th. Exhibited.—FRUITS: From J. F. Allen, Emerald, Winter Nelis, Jervis (?), Brugmansbirne (inferior), Chaumontel and Glout Morceau pears. From Dr. J. C. Warren, Beurré Diel pears, very fine. From T. Needham, Frankindale, Syrian, Black Hamburgh, St. Peters, and Muscat of Alexandria grapes.

November 20th. Exhibited.—FRUITS: From S. Walker, Verte Longue d'Automne, Beurré Rance, good; Sabine, good; Figue, fine; Duchesse d'Angouleme, fine; Beurré Diel, fine; Vicar of Winkfield; this variety fully sustains its reputation; the specimens were fine and the quality excellent. From Mrs. Battell, of Norfolk, Conn., the Torrington Pounder apple, the specimens were large and fine, quality not first rate. From Joseph Burnett, Southboro', Flushing Spitzenburg (?) and Belden Sweet apples; the specimens were handsome, but only of fair quality. From John Owen, two apples without names, and Messire Jean pear. From Messrs. Hovey & Co., Esperine pear, past eating. From W. A. Smith, Macedon, Wayne Co., N. Y., fine specimens of an apple called the Watermelon, a description of which will be found in a preceding page.

Nov. 27th. Exhibited.—FRUITS: From the President of the Society the following new pears were presented, viz: Doyenné Boussock; these specimens were different from all others which have been exhibited under this name; Doyenné Nerckman, Buerré d'Elberg. From E. M. Richards, specimens of

the Minister apple : this apple sustains its reputation as one of the best. From Samuel Walker, Passe Colmar, Vicar of Winkfield, Beurré d'Aremberg, Glout Morceau, and Beurré Rance pears. The specimens of the Beurré Rance were the best ever exhibited at the hall of the society, but still they were not equal to the character given by Mr. Thompson in the London Horticultural Society's Catalogue.

[For want of room, the business transactions at the meetings during the month are postponed till our next.]

HORTICULTURAL MEMORANDA

FOR DECEMBER.

FRUIT DEPARTMENT.

Grape Vines will require to be pruned this month, and the vines put in order for the winter. After they are properly pruned, all the old bark should be very carefully peeled off, and, if there is any danger of insects, the shoots, both old and new, should be brushed with the composition heretofore recommended for both trees and vines, viz., clay, cowdung, and sulphur, made of the consistence of paint, and put on with a brush : after this, the vines should be laid *horizontally* along the front wall, where they will be in less danger of injury than upon the trellis. In cold houses, after the vines are pruned, they may be laid down, and covered with strawy manure, or mats. Vines in the open air of foreign kinds should be protected ; and Isabella, and other native vines, have a thorough pruning.

Strawberry beds should be slightly protected with a thin covering of manure, leaves, or straw, if not already done.

Fruit trees, especially such as have been recently planted, should have at least a barrow of manure placed in a heap over the roots : this will prevent their being thrown out of the ground.

Currants and raspberries should receive the same protection as fruit trees.

Pear stocks should be taken up and laid in, in a dry soil, where they will keep safely.

Fruit trees of all kinds should be looked to now, and such as have their labels defaced replaced with new ones : care should also be taken that the wires do not girdle the branches.

Scions of trees for grafting may be cut now, and placed in earth in a cool cellar.

Apple stocks for root-grafting during the winter, should be taken up now, and laid in, covering them with straw, so that they can be taken into the house, and grafted, as leisure will permit, from February to April.

FLOWER DEPARTMENT.

Chrysanthemums, as soon as done flowering, should be cut down, and placed away in a cold frame, or in a cool cellar exposed to the light.

Camellias will now begin to flower, and will be the showiest objects in the conservatory : but they should be in the best order. If the leaves are dusty, let them be carefully washed with a sponge : after this, tie them up to sticks, and top-dress the soil. See that they are well watered.

Pelargoniums will now begin to need more attention. Let the pots be placed in a good situation, near to the light and air. Now is the time to pinch off such shoots as are growing freely, and to cut out weak ones : if they require it, the branches should be tied down to make them dwarf and bushy : water sparingly now, as they should be got into as hardy a state as possible : the leaves should feel quite stiff, and rustle under the hand. Have a good lot of soil in readiness to shift next month.

Ranunculuses and *anemonies*, potted now, will flower well in the spring.

Roses should all be pruned, if not already done. Such as are intended for early blooming should be freely syringed, until the buds are all broken : water carefully, until they are well established. Cuttings of such sorts, as the stock is limited, may be put in now. Tender sorts in the open ground should be protected before frost, with manure, tan, sawdust, or dry moss.

Verbenas growing freely should be shifted into larger pots.

Azaleas will still require careful watering. Hardy sorts may be taken up and potted, and brought into the conservatory for successive blooming : they force well.

Oxalises will now begin to bloom, and should be removed to a light shelf in the greenhouse, and liberally watered.

Calceolarias should now be potted off from the seed pans, and older plants shifted into the next size.

Schizanthuses should now have another shift into the next size.

Cinerarias should now be repotted.

Heliotropes should be brought in for a succession.

Nemophilas will now begin to bloom, and should be shifted into larger pots.

Victoria stocks should be kept in a light and airy place, and rather sparingly watered. This will make them strong and stocky.

Carnations, now brought into the greenhouse, will flower finely in February and March.

Hyacinths in pots may now be brought into the greenhouse or parlor for early blooming : bulbs may now be potted for a succession.

Japan lily seeds may be sown now, and the pans placed in a half shady situation.

Sedum Sieboldii.—Plants of this fine autumnal flower, now done blooming, may be placed in a cold frame.

Achimenes of various sorts may now be placed in pans, in a warm situation, in order to start them for early blooming in March and April ; the little tubers may be put in quite thick.

Greenhouse plants should now be thoroughly cleansed of all insects. Smoke often for the green fly. Fumigate with sulphur for the red spider, and wash off carefully all scales or mealy bags. Tie, stake up, top-dress, and keep the pots clean by occasional washings.



